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SHOWING

PROGRESS AND STATUS OF THE DEFENSE MINERALS PRODUCTION PROGRAM

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COMPILATION SHOWING PROGRESS AND STATUS OF THE DEFENSE MINERALS PRODUCTION PROGRAM

MEMORANDUM

OCTOBER 9, 1952.

To: Hon. Ken Regan, chairman, Subcommittee on Mines and Mining.

From: George H. Soule, Jr., committee consultant on mining and minerals.

Subject: Defense Minerals Production Program Data.

Attached are current information and data which show the progress and status of the defense minerals production program.

This compilation of agency documents and industry statements on the subject should be highly informative and useful to those concerned with the defense minerals production program. I trust that it will serve your purpose and be helpful to the committee members interested in the program.

EXPLORATION CONTRACTS

A complete listing of the 357 exploration contracts executed through August 31, 1952, may be had by referring to (1) the list of contracts in force as of May 31, 1952, (2) the list of contracts terminated as of May 31, 1952, and (3) the two supplementary lists of contracts executed since May 31, 1952.

The 75 exploration contracts terminated through August 31, 1952, are shown on three lists. Contracts have been terminated or canceled for a variety of reasons. Some have been completed. Others have been terminated before work was started or after various degrees of completion because (1) the operator experienced difficulty in financing his share of the project, (2) the falling metal prices and easing supply situation made the proposed venture unattractive, (3) little or no ore was found after a certain amount of work was performed, (4) physical difficulties were encountered, or (5) for other reasons.

PRODUCTION AND MAINTENANCE CONTRACTS

The DMPA list of contracts for expansion and maintenance of supply of metals, minerals, and other materials, shows that 62 such contracts had been executed as of August 31, 1952. At least 18 of these contracts are for materials of foreign origin or for materials which will be produced wholly or largely from ores of foreign origin. Only a few of the listed domestic contractors are small, independent producers.

This list of contracts is deficient in many respects. For instance, the prices paid under the "subsidy" type contracts, as labeled by the agency, are not revealed; some of the contracts labeled as "purchase" type contracts are at prices considerably above the market

price, but are indicated as not being subsidy contracts; and in many instances floor prices are not given.

By request, an analysis of margins showing (1) contract price, (2) cost of production, and (3) allowances for (*a*) depletion, (*b*) amortization, (*c*) depreciation, (*d*) profit, and (*e*) contingency for each subsidy contract was presented. However, the DMPA submitted this as confidential information. Its reasons are set forth in a letter of tranmittal to Chairman Murdock from Jess Larson, Administrator, as follows:

> The table entitled "Analysis of Margins" is submitted for confidential use by the committee in connection with its review of operations of DMPA. As you are doubtless aware, data on production costs of individual private firms are furnished to this Agency with the understanding that they not be made public. Release of these data could cause serious injury to firms which are cooperating with the Government in its efforts to assure the mobilization base deemed essential to the national defense. Release of the data would give an unfair advantage to the competitors of these firms. It could jeopardize the bargaining position of the Government and endanger the national security. Accordingly, I am compelled to respectfully request that the table showing data on margins and out-of-pocket production costs of individual firms not be published. I am confident that you will recognize the need for withholding publication of these data.

ODM REPORT ON BORROWING AUTHORITY

The ODM quarterly report on utilization of borrowing authority under the Defense Production Act, while it has limited distribution, contains much valuable information on the subject. The identity of certain programs or contracts are not revealed in this report—apparently purposefully so.

For the sake of brevity I have deleted all items other than minerals and unfabricated metals.

ADDRESS BY HOWARD I. YOUNG

The year 1950 was the base period used by Mr. Young in determining the percentage of production increases anticipated for the several commodities discussed in his address.

INDUSTRY PAPERS

Short papers on strategic minerals and metals were presented by members of industry before the American Mining Congress, Denver, Colo., September 24, 1952. Since these highly informative papers were designed to show present status of several strategic minerals industries in the United States I believe you will find them to be a valuable addition to this compilation.

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UNITED STATES DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION REPORT FOR JUNE 1952

Progress by the Defense Minerals Exploration Administration in the month of June was high lighted by—

Certification of a lead-zinc-copper discovery or development

Certification of a discovery or development on the property of the Utze Lode Co., Chaffee County, Colo., resulting from an exploration project for lead, zinc, and copper was issued this month. Total estimated cost of the project was $20,000, with Government participation of 50 percent. The actual cost was $22,116. The excess of $2,116 was spent by the company with the full understanding that the Government would not participate in the additional cost.

Quality of applications improving

Although the number of applications received during the month of June was slightly under that of the previous month (40 as compared with 56 in May) the quality of the applications received during this period, from the standpoint of completeness and accuracy of the data furnished, is better than that of similar groups of applications received in the recent past.

During the month there was a lessening of the numbers of applications denied and withdrawn, with a consequent proportional increase of executed contracts. Also, there was a continuation of the whittling away of the backlog of applications in process, which backlog has been reduced steadily during the last fiscal year from 615 on July 1, 1951, to 349 on June 30, 1952. This progress is reflected in more expeditious processing of applications being received.

Demand for new information booklet

Steadily growing demand for an informational booklet, The Defense Minerals Exploration Program, may be accepted as an indication of continued interest in the program. The greater part of these requests for information have stemmed from competent individuals, companies, and groups who are prompted by more than curiosity. Since the publication of the booklet a month ago, nearly 4,000 have been distributed.

Additional statistics

Inasmuch as this report comes at the end of the first full fiscal year of the defense minerals exploration program, several statistical tables and charts, summarizing operations during the fiscal year 1952, have been added. Five additional tables present summaries as follows:

Receipts and disposition of applications
Contracts executed, by month
All applications received and status by regions
All applications received and status by commodity
Distribution of Government participation on executed contracts by State and commodity

The three charts added are chart I—Percentage distribution of Government participation in 315 contracts executed through June 30, 1952; Chart II—Monthly distribution of dollar amounts in 315 contracts executed through June 30, 1952; and Chart III—Receipts of applications and final actions by months of fiscal year 1952.

The regularly attached tables give the usual statistical picture of contracts handled in the month of June, recapitulation to date of contracts in force and their values, the percentage of Government participation and disbursements, and details covering certifications and projects terminated.

Report of Exploration Assistance Applications as of June 30, 1952

During June:	
Applications in process as of May 31	363
Applications received during June	40
Total	403
Contracts executed	19
Applications denied	15
Applications withdrawn	20
	54
Total applications in process as of June 30, 1952	349
Applications approved and contracts prepared during June	35
Contracts approved but not yet executed by applicant	32
Stages of completion of applications "in process":	
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Applications awaiting additional information from applicant	43
Applications with field teams for on-site examination	181
Applications in final stages of processing: (*a*) Contracts prepared but not yet executed by applicant, (*b*) contracts or denial letters being prepared, (*c*) applications on which field team reports have been received and final action is to be taken	101
Status of applications for exploration assistance through June:	
Total number of applications received	315
Applications approved and contracts executed	544
Applications denied	203
Applications withdrawn	349
Applications in process	1,411
Location of applications in process:	
Base Metals Division	37
Iron and Ferro Alloys Division	26
Nonmetallic Minerals Division	51
Rare and Miscellaneous Metals Division	47
Chief Counsel's Office	7
Total	168

Report of Exploration Assistance Applications as of June 30, 1952—Continued

Field teams (for on-site examinations):	
Region I	1
Region II	46
Region III	32
Region IV	[1] 89
Region V	0
Region VI	2
Region VII	9
Region VIII	2
Total	181
Grand total in process	349
Amendments to contracts executed as of May 31, 1952	326
Amendments to contracts executed this month	41
Total	367

[1] 67 applications being processed within delegation of authority, region IV.

The tables attached present an analysis of all executed contracts by commodity, State, and region.

TABLE I.—*Defense minerals exploration projects, commodity distribution*

Commodity	Contracts executed in June 1952			Contracts executed through June 1952			Contracts canceled and terminated through June 1952			Contracts in force as of June 30, 1952			
	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Percent distribution of Government part
Antimony				$178,105	$237,473	8				$178,105	$237,473	8	2.0
Asbestos				441,357	490,396	9	$105,840	$117,600	2	335,517	374,796	7	3.8
Beryl mica	$10,890	$12,100	1	153,152	170,168	13	33,749	37,499	3	119,403	132,669	10	1.4
Cobalt-nickel	[1] 72,030	[1] 102,900	1	492,729	657,352	6	6,768	7,520	1	485,961	649,832	5	.1
Columbium-tantalum				3,184	3,538	1				3,184	3,538	1	5.5
Copper				818,207	1,636,417	22				818,207	1,636,417	22	9.3
Fluorspar				34,880	69,758	2				34,880	69,758	2	.4
Lead-zinc	[2] 215,417	[2] 430,833	8	3,222,831	6,452,266	109	59,159	118,318	9	3,163,672	6,333,948	100	36.0
Lead-zinc-copper	86,575	173,150	2	1,054,668	2,109,336	26	30,938	61,875	1	1,023,730	2,047,461	25	11.7
Manganese	[2] 6,131	[2] 8,175	0	250,455	333,939	7	42,000	56,000	3	208,455	277,939	4	2.4
Mercury				348,660	464,880	8	140,109	186,812	3	208,551	278,068	5	2.4
Mica	8,280	9,200	1	144,297	160,330	34	60,378	67,086	21	83,919	93,244	13	1.0
Rare earths				21,841	24,267	2	12,647	14,052	1	9,194	10,215	1	.1
Rutile				15,675	20,900	1				15,675	20,900	1	.2
Sulfur				138,120	276,239	3	88,545	177,089	2	49,575	99,150	1	.3
Talc				29,267	32,519	1				29,267	32,519	1	.6
Tin				144,000	160,000	2				144,000	160,000	2	1.6
Tungsten	[2] 116,718	[2] 155,624	5	1,416,140	1,888,186	46	45,357	60,476	5	1,370,783	1,827,710	41	15.6
Uranium	56,475	62,750	1	496,061	551,179	15				496,061	551,179	15	5.6
Total	572,516	954,732	19	9,403,629	15,739,143	315	[3] 625,490	904,327	51	8,778,139	14,834,816	264	100.0

[1] This contract was drawn for cobalt and copper at 70 percent Government participation.
[2] Includes one amendment made during June which increased contract amounts.
[3] $354,079 of this amount represents the Government's share on 37 terminated contracts. $194,152 of the Government's money has been spent on these contracts.

TABLE II.—*Defense minerals exploration projects, State distribution*

State	Region	Contracts executed in June 1952			Contracts executed through June 1952			Contracts canceled and terminated through June 1952			Contracts in force as of June 30, 1952			
		Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Percent distribution of Government part
Alaska	I				$351,950	$470,782	4				$351,950	$470,782	4	4.0
Arizona	IV				343,576	588,059	9	$2,500	$5,000	1	341,076	583,059	8	3.9
Arkansas	VI				129,685	172,913	5	42,000	56,000	3	87,685	116,913	2	1.0
California	III	$37,130	$56,380	3	900,246	1,283,620	20	161,166	198,988	4	739,080	1,084,632	16	8.4
Colorado	IV	[1] 134,894	[1] 198,416	4	1,056,513	1,762,425	44	46,925	88,849	6	1,009,588	1,673,576	38	11.5
Florida	VII				15,675	20,900	1				15,675	20,900	1	.2
Georgia	VII				29,184	37,286	3				29,184	37,286	3	.3
Idaho	II	148,295	255,430	2	1,248,398	2,315,111	34	12,947	14,652	2	1,235,451	2,300,459	32	14.1
Illinois	VIII				30,983	61,965	1				30,983	61,965	1	.4
Iowa	V				14,850	29,700	1				14,850	29,700	1	.2
Maine	VIII				40,140	44,600	1				40,140	44,600	1	.4
Michigan	V				284,096	568,193	1				284,096	568,193	1	3.2
Missouri	VI	1,800	3,600	1	322,413	488,209	6	4,934	9,869	1	317,479	478,340	5	3.6
Montana	II	[2] 6,131	[2] 8,175	0	900,381	1,462,735	39	30,938	61,875	1	869,443	1,400,860	38	9.9
Nevada	III	119,011	238,022	3	453,784	805,880	17	4,650	6,200	1	449,134	799,680	16	5.1
New Hampshire	VIII				17,460	19,400	2				17,460	19,400	2	.2
New Mexico	IV	70,509	102,258	2	581,958	1,109,156	7				581,958	1,109,156	7	6.6
North Carolina	VII	8,280	9,200	1	170,758	189,731	34	60,378	67,086	21	110,380	122,645	13	1.3
Oklahoma	VI				78,000	156,000	1				78,000	156,000	1	.9
Oregon	II				56,390	85,187	3	15,345	20,460	1	41,045	64,727	2	.5
South Dakota	V				192,993	219,592	12	33,749	37,499	3	159,244	182,093	9	1.8
Tennessee	VII				6,768	7,520	1	6,768	7,520	1			0	0
Texas	VI				113,604	181,029	3	105,765	173,579	2	7,837	10,450	1	.1
Utah	IV				1,207,308	2,161,534	27	11,430	15,240	1	1,196,078	2,146,284	26	13.6
Vermont	VIII				180,671	223,582	4	34,290	38,100	1	146,381	185,482	3	1.7
Washington	II	46,466	83,251	3	427,298	771,643	21	12,000	24,000	1	415,298	747,643	20	4.7
Wisconsin	V				159,069	320,841	12				159,069	320,841	12	1.8
Wyoming	IV				89,280	178,560	2	39,705	79,410	1	49,575	99,150	1	.6
Total		572,516	954,732	19	9,403,629	15,739,143	315	625,490	904,327	51	8,778,139	14,834,816	264	100.0

[1] Includes 2 amendments made during June, increasing contract amounts.
[2] Includes 1 amendment made during June, increasing contract amounts.

TABLE III.—*Defense minerals exploration projects, regional distribution*

Region	Contracts executed in June 1952			Contracts executed through June 1952			Contracts canceled and terminated through June 1952			Contracts in force as of June 30, 1952			
	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Percent distribution of Government part
I				$351,950	$470,782	4				$351,950	$470,782	4	4.0
II	[1] $200,892	[1] $346,856	5	2,632,467	4,634,676	97	$71,230	$120,987	5	2,561,237	4,513,689	92	29.2
III	156,141	294,402	6	1,354,030	2,089,499	37	165,816	205,188	5	1,188,214	1,884,311	32	13.5
IV	[2] 205,403	[2] 300,674	6	3,278,835	5,799,724	89	100,560	188,499	9	3,178,275	5,611,225	80	36.2
V				651,008	1,138,326	26	33,749	37,499	3	617,259	1,100,827	23	7.0
VI	1,800	3,600	1	643,700	1,001,151	15	152,699	239,448	6	491,001	761,703	9	5.6
VII	8,280	9,200	1	222,385	255,437	39	67,146	74,606	22	155,239	180,831	17	1.8
VIII				269,254	349,547	8	34,290	38,100	1	234,964	311,447	7	2.7
Total	572,516	954,732	19	9,403,629	15,739,142	315	625,490	904,327	51	8,778,139	14,834,815	264	100.0

[1] Includes 1 amendment made during June increasing contract amounts.
[2] Includes 2 amendments made during June increasing contract amounts.

TABLE IV.—*Summary of disbursement data*

REGIONAL DISTRIBUTION CUMULATIVE THROUGH MAY 31, 1952

Region	Regional disbursements
I	$63,712.04
II	683,662.52
III	282,721.41
IV	857,227.62
V	217,633.68
VI	145,094.97
VII	68,948.35
VIII	37,901.52
Total	2,356,902.11

MONTHLY DISTRIBUTION THROUGH MAY 31, 1952

Month	Month-by-month disbursement	Cumulative disbursements
1951—		
July	$12,125.62	$12,125.62
August	64,764.53	76,890.15
September	238,885.60	315,775.75
October	229,621.57	545,397.32
November	211,127.61	756,524.93
December	217,054.64	973,579.57
1952—		
January	261,280.43	1,234,860.00
February	245,613.20	1,480,473.20
March	231,786.38	1,712,259.58
April	298,113.56	2,010,373.14
May	346,528.97	2,356,902.11
Total	2,356,902.11	

TABLE V.—*Terminated and certified projects*

Commodity	Projects terminated through June 30, 1952				Projects certified through June 30, 1952					Amount spent on certified as percent of amount spent on all terminated
	Number	Government participation	Value of contract	Amount Government participation spent	Number of projects certified	States (8)	Government participation	Value of contract	Amount Government participation spent	
Asbestos	1	$71,550	$79,500	$2,760	None					
Beryl-mica	3	27,495	30,550	[1] 10,650	2	South Dakota	$14,895	$16,550	[1] $9,353	87.8
Cobalt-nickel	1	6,768	7,520	5,119	None					
Lead-zinc	6	31,334	62,669	27,835	1	Colorado	10,000	20,000	10,000	35.9
Manganese	3	42,000	56,000	34,948	2	Arkansas	27,000	36,000	26,490	75.8
Mica	17	45,708	50,786	30,526	3	North Carolina	11,808	13,120	10,941	35.8
Rare earths	1	12,647	14,052	12,004	1	Idaho	12,647	14,052	12,004	100.0
Sulfur	2	88,545	177,089	37,545	1	Wyoming	39,705	79,410	19,752	52.6
Tungsten	5	50,422	67,230	[1] 42,160	2	California; Montana	27,745	36,994	[1] 19,486	46.2
Total	39	376,469	545,396	[1] 203,547	12		143,800	216,126	[1] 108,026	53.0

[1] Final payment to the operator has not yet been made on 1 beryl-mica and 1 tungsten project which have been certified. These 2 projects are therefore not reported in tables I, II, and III as terminated. However, to permit the comparisons for which this table was designed, estimates of expenditures on these projects have been included.

TABLE VI.—*Year-end summary of receipts and disposition of applications*

Applications	July 1951	August 1951	September 1951	October 1951	November 1951	December 1951	January 1952	February 1952	March 1952	April 1952	May 1952	June 1952
In process	615	607	574	516	495	494	478	456	431	406	382	363
Received	94	74	52	68	62	42	55	42	57	49	56	40
Total	709	681	626	584	557	536	533	498	488	455	438	403
Approved and executed	34	35	24	23	16	27	22	17	10	27	23	19
Denied	60	61	78	56	31	29	36	34	32	25	26	15
Withdrawn	8	11	8	10	16	2	19	16	40	21	26	20
Total actions	102	107	110	89	63	58	77	67	82	73	75	54
In process	607	574	516	495	494	478	456	431	406	382	363	349

TABLE VII.—*Year-end summary of contracts executed, by months*

Month	Number of newly executed contracts	Government participation in contracts and amendments executed during month	Value of contracts and amendments executed during month	Cumulative total number of contracts	Cumulative Government participation through month	Cumulative value of contracts through month
1951—June	38	$1,659,977	$2,894,820	38	$1,659,977	$2,894,820
July	34	1,271,595	2,010,196	72	2,931,572	4,905,016
August	35	1,382,064	2,403,998	107	4,313,636	7,309,014
September	24	527,523	843,613	131	4,841,159	8,152,627
October	23	641,474	1,164,631	154	5,482,633	9,317,258
November	16	322,367	482,241	170	5,805,000	9,799,498
December	27	701,328	1,140,777	197	6,506,328	10,940,276
1952—January	22	452,352	783,310	219	6,958,680	11,723,586
February	17	692,402	1,242,375	236	7,651,082	12,965,961
March	10	169,833	258,081	246	7,820,915	13,224,042
April	27	546,552	795,962	273	8,367,467	14,020,004
May	23	463,642	764,408	296	8,831,109	14,784,412
June	19	572,516	954,732	315	9,403,625	15,739,144
Total	315	9,403,625	15,739,144			

TABLE VIII.—*Year-end summary of all applications received and status, by regions*

Region	Total		Disposition of applications			
	Received	In process	Total number	Executed	Denied	Withdrawn
I	18	7	11	4	4	3
II	343	90	253	97	119	37
III	277	67	210	37	123	50
IV	422	112	310	89	160	61
V	76	8	68	26	28	14
VI	46	8	38	15	12	11
VII	193	49	144	39	85	20
VIII	36	8	28	8	13	7
Total	1,411	349	1,062	315	544	203

TABLE IX.—*Year-end summary of all applications received and status, by commodity*

Commodity	Total		Disposition of applications			
	Received	In process	Total number	Executed	Denied	Withdrawn
Antimony	29	8	21	8	7	6
Asbestos	29	11	18	9	7	2
Bauxite	2	0	2	0	0	2
Beryl	50	9	41	11	21	9
Cadmium	1	1	0	0	0	0
Chrome	5	1	4	0	4	0
Cobalt	20	3	17	4	8	5
Columbium-tantalum	7	2	5	1	3	1
Copper	186	44	142	28	74	40
Corundum	4	1	3	0	3	0
Fluorspar	19	6	13	2	8	3
Graphite	3	1	2	0	2	0
Iron	23	7	16	0	9	7
Kyanite	3	2	1	0	1	0
Lead	284	61	223	87	112	24
Manganese	76	11	65	7	37	21
Mercury	32	13	19	8	6	5
Mica	165	46	119	36	72	11
Molybdenum	4	0	4	0	1	3
Monazite	18	5	13	2	9	2
Nickel	9	2	7	1	4	2
Platinum	3	0	3	0	3	0
Quartz	5	1	4	0	3	1
Rare earths	6	2	4	0	3	1
Rutile	1	0	1	1	0	0
Sulfur	6	0	6	3	1	2
Talc	15	3	12	1	10	1
Tin	15	4	11	2	6	3
Tungsten	210	48	162	46	82	34
Uranium	78	33	45	15	20	10
Zinc	97	24	73	43	23	7
Miscellaneous [1]	6	0	6	0	5	1
Total	1,411	349	1,062	315	544	203

[1] Includes applications for minerals or metals not covered by MO-5 or DMEA order 1

TABLE X.—*Distribution of Government participation on executed contracts, by State and commodity*

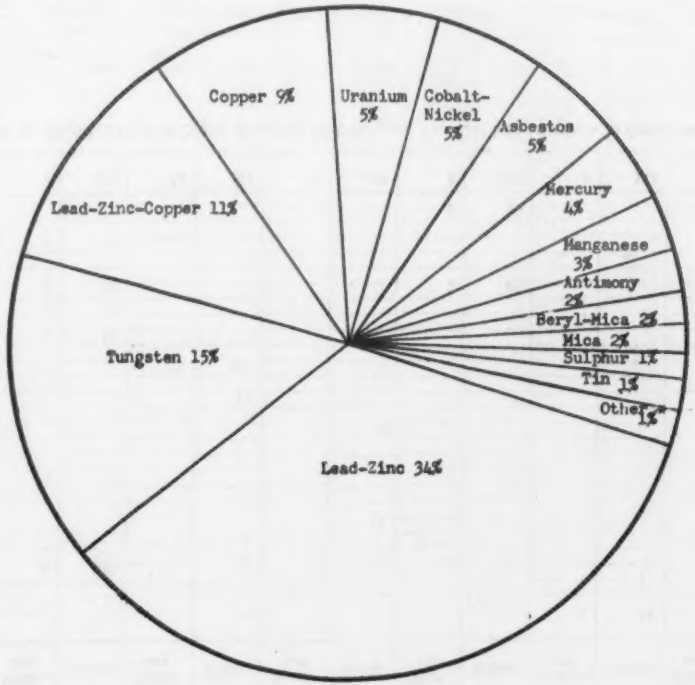
[Dollar figures stated in thousands]

State	Antimony		Asbestos		Beryl-mica		Cobalt-nickel		Copper		Fluorspar		Lead-zinc		Lead-zinc-copper		Manganese	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
Alaska							1	108	1	56								
Arizona			1	111					5	188			2	13	1	32		
Arkansas	1	13															4	117
California			3	149					1	8			1	9	2	157		
Colorado									1	2			23	480	5	107		
Georgia					1	2											1	22
Idaho	3	108					1	72	1	29	1	4	18	617	6	320		
Illinois											1	31						
Iowa													1	15				
Maine					1	40												
Michigan									1	284								
Missouri							1	274					5	48				
Montana			1	22					4	75			14	276	5	76	2	112
Nevada	1	2							2	40			6	250	1	13		
New Hampshire					1	6												
New Mexico							1	18	1	84			3	310	1	113		
North Carolina							1	14										
Oklahoma													1	78				
Oregon	1	26							1	15								
South Dakota					9	94							1	6				
Tennessee							1	7										
Texas																		
Utah									2	11			12	712	3	189		
Vermont			3	155					1	26								
Washington	2	29			1	11			1	4			11	256	2	47		
Wisconsin			1	5									11	154				
Wyoming																		
Total	8	178	9	442	13	153	6	493	22	822	2	35	109	3,224	26	1,054	7	251

State	Mercury		Mica		Rare earths		Sulfur		Tin		Tungsten		Uranium		Totals	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
Alaska									1	54	1	134			4	352
Arizona															9	344
Arkansas															5	130
California	3	218									10	329			20	900
Colorado											11	296	4	173	44	1,058
Georgia			1	5											3	29
Idaho					1	13					3	86			34	1,249
Illinois															1	31
Iowa															1	15
Maine															1	40
Michigan															1	284
Missouri															6	322
Montana					1	9					8	262	4	69	39	901
Nevada	1	7									6	144			17	456
New Hampshire			1	12											2	18
New Mexico											1	58			7	583
North Carolina			32	127											33	141
Oklahoma															1	78
Oregon	1	15													3	56
South Dakota									1	90					11	190
Tennessee															1	7
Texas	2	65					1	49							3	114
Utah											3	41	7	255	27	1,208
Vermont															4	181
Washington	1	14									3	67			21	428
Wisconsin															12	159
Wyoming							2	89							2	89
Total	8	349	34	144	2	22	3	138	2	144	46	1,417	15	497	312	9,363

NOTE.—Not included are 1 rutile in Florida ($16,000); 1 talc in North Carolina ($29,000); and 1 columbium-tantalum in South Dakota ($3,000).

CHART I--PERCENTAGE DISTRIBUTION OF GOVERNMENT PARTICIPATION IN 315 CONTRACTS EXECUTED THROUGH JUNE 30, 1952



*Columbium-Tantalum
Fluorspar
Rare Earths
Rutile
Talc

CHART II—MONTHLY DISTRIBUTION OF DOLLAR AMOUNTS IN 315 CONTRACTS EXECUTED THROUGH JUNE 30, 1952

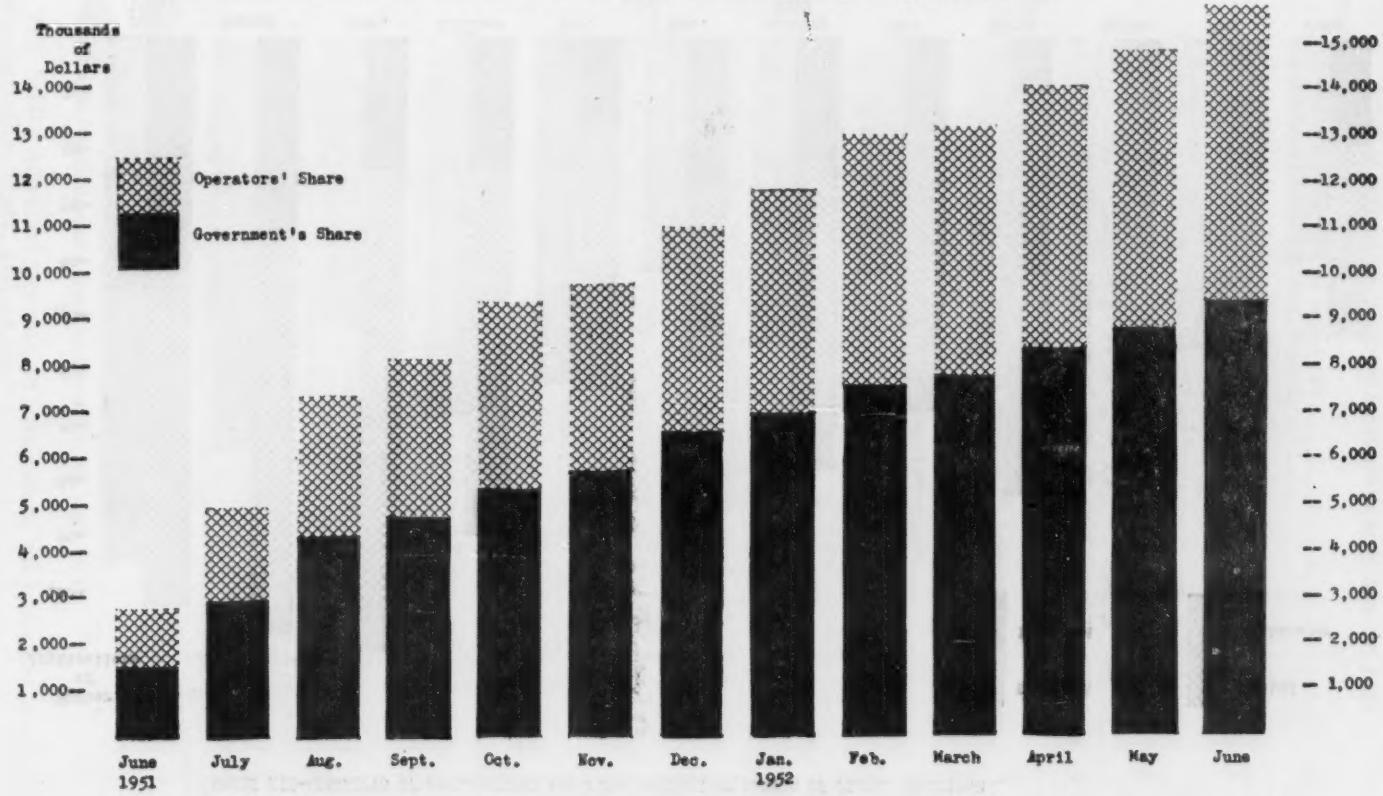
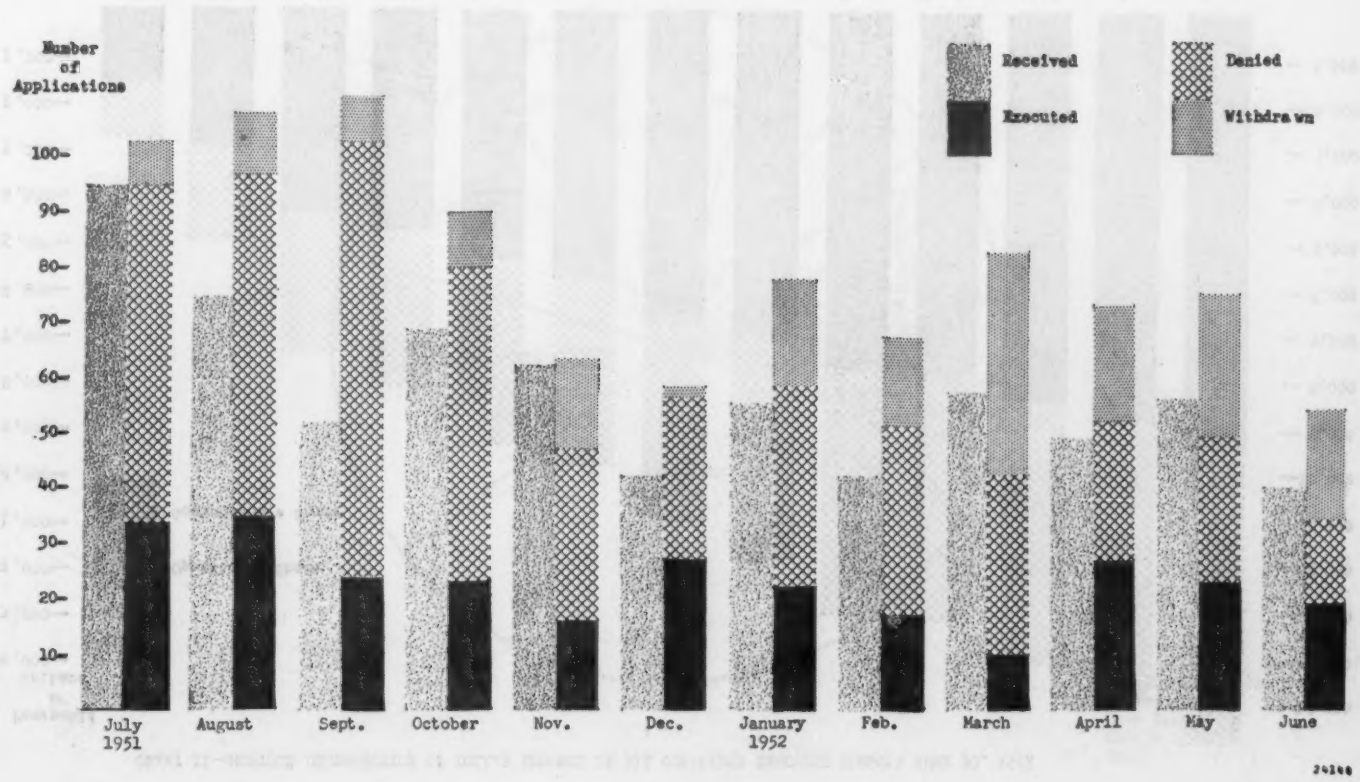


CHART III--RECEIPTS OF APPLICATIONS AND FINAL ACTIONS BY MONTHS OF FISCAL YEAR 1952



Report of exploration assistance applications as of Aug. 31, 1952

During August:	
Applications in process as of July 31	311
Applications received during August	42
Total	353
Contracts executed	12
Applications denied	36
Applications withdrawn	17
Total	65
Total applications in process as of Aug. 31, 1952	288
Applications approved and contracts prepared during August	14
Contracts approved but not yet executed by applicant	23
Stages of completion of applications in process:	
Applications in stage of preliminary analysis by Commodity Division engineers, Bureau of Mines and Geological Survey commodity specialists	22
Applications awaiting additional information from applicant	24
Applications with field teams for on-site examination	159
Applications in final stages of processing: (*a*) Contracts prepared but not yet executed by applicant, (*b*) contracts or denial letters being prepared, (*c*) applications on which field team reports have been received and final action is to be taken	83
Status of applications for exploration assistance through August:	
Total number of applications received	1,492
Applications approved and contracts executed	357
Applications denied	609
Applications withdrawn	238
Applications in process	288
Location of applications in process:	
Base Metals Division	30
Iron and Ferro Alloys Division	29
Nonmetallic Minerals Division	31
Rare and Miscellaneous Metals Division	35
Chief counsel's office	4
	129
Field teams (for on-site examinations):	
Region I	0
Region II	34
Region III	22
Region IV	[1] 89
Region V	0
Region VI	1
Region VII	13
Region VIII	0
	159
Grand total in process	288
Amendments to contracts executed as of July 31, 1952	413
Amendments to contracts executed this month	33
Total	446

[1] 68 applications being processed within delegation of authority, region IV.

The tables attached present an analysis of all executed contracts by commodity, State, and region.

TABLE I.—*Defense minerals exploration projects, commodity distribution*

Commodity	Contracts executed in August 1952			Contracts executed through August 1952			Contracts canceled and terminated through August 1952			Contracts in force as of Aug. 31, 1952			
	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Percent distribution of Government part
Antimony				$178,105	$237,473	8	$12,685	$16,913	1	$165,420	$220,560	7	1.7
Asbestos				441,357	490,396	9	177,390	197,100	3	263,967	293,296	6	2.7
Beryl-mica	$2,250	$2,500	1	155,402	172,668	14	61,784	68,649	8	93,618	104,019	6	1.0
Cobalt-nickel				492,729	657,352	6	6,768	7,520	1	485,961	649,832	5	4.9
Columbium-tantalum				3,184	3,538	1	3,184	3,538	1			0	0
Copper	5,598	11,195	2	860,905	1,712,612	26	58,254	116,509	3	802,651	1,596,103	23	8.2
Fluorspar				63,830	127,658	3	3,897	7,793	1	59,933	119,865	2	.6
Graphite				925	1,850	1			0	925	1,850	1	.1
Iron				141,850	283,700	1			0	141,850	283,700	1	1.4
Lead-zinc	[1] 160,451	[1] 320,901	2	3,844,913	7,696,529	120	95,949	191,898	13	3,748,964	7,504,631	107	38.2
Lead-zinc-copper	[2] 32,994	[2] 65,988	0	1,101,162	2,202,324	27	68,628	137,255	3	1,032,534	2,065,069	24	10.5
Manganese				250,455	333,939	7	42,000	56,000	3	208,455	277,939	4	2.1
Mercury	195,712	260,949	2	544,372	725,829	10	169,689	226,252	4	374,683	499,577	6	3.8
Mica	3,690	4,100	1	201,807	224,230	44	69,176	76,861	24	132,631	147,369	20	1.3
Rare earths	31,507	37,960	1	97,294	111,056	5	12,647	14,052	1	84,647	97,004	4	.9
Rutile				15,675	20,900	1				15,675	20,900	1	.2
Sulfur				138,120	276,239	3	88,545	177,089	2	49,575	99,150	1	.5
Talc				29,267	32,519	1				29,267	32,519	1	.3
Tin				160,200	178,000	3				160,200	178,000	3	1.6
Tungsten	38,700	51,600	2	1,485,440	1,980,586	50	58,107	77,476	7	1,427,333	1,903,110	43	14.5
Uranium	22,050	24,500	1	543,068	603,409	17				543,068	603,409	17	5.5
Total	492,952	779,693	12	10,750,060	18,072,807	357	[3] 928,703	[3] 1,374,905	75	9,821,357	16,697,902	282	100.0

[1] Includes 2 amendments made during August which increased contract amounts.
[2] Includes 1 amendment made during August which increased contract amounts.
[3] $530,375 of this amount represents the Government's share in 53 terminated contracts. $287,860 of the Government's money has been spent on these contracts.

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TABLE II.—*Defense mineral exploration projects—State distribution*

State	Region	Contracts executed in August 1952			Contracts executed through August 1952			Contracts canceled and terminated through August 1952			Contracts in force as of Aug. 31, 1952			
		Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Percent distribution of Government participation
Alaska	I	$30,750	$41,000	1	$398,900	$529,782	6				$398,900	$529,782	6	4.0
Arizona	IV				343,576	588,059	9	$37,448	$74,896	2	306,128	513,163	7	3.1
Arkansas	VI				129,685	172,913	5	54,685	72,913	4	75,000	100,000	1	.8
California	III	182,512	243,349	1	1,095,358	1,543,769	22	270,603	334,541	7	824,755	1,209,228	15	8.4
Colorado	IV	[1] 38,282	[1] 74,563	1	1,094,795	1,836,988	45	80,445	153,389	9	1,014,350	1,683,599	36	10.3
Florida	VII				15,675	20,900	1				15,675	20,900	1	.2
Georgia	VII				29,184	37,286	3	2,353	2,614	1	26,831	34,672	2	.3
Idaho	II	135,350	270,700	2	1,506,569	2,771,190	42	33,843	56,445	4	1,472,726	2,714,745	38	15.0
Illinois	VIII				30,983	61,965	1				30,983	61,965	1	.3
Iowa	V				14,850	29,700	1				14,850	29,700	1	.2
Maine	VIII				40,140	44,600	1				40,140	44,600	1	.4
Michigan	V				284,096	568,193	1				284,096	568,193	1	2.9
Missouri	VI				326,301	495,985	7	4,934	9,869	1	321,367	486,116	6	3.3
Montana	II				923,131	1,508,235	41	51,628	103,255	2	871,503	1,404,980	39	8.9
Nevada	III	23,040	31,980	3	476,824	837,860	20	13,650	18,200	2	463,174	819,660	18	4.7
New Hampshire	VIII				17,460	19,400	2	5,760	6,400	1	11,700	13,000	1	.1
New Jersey	VIII				142,775	285,550	2				142,775	285,550	2	1.5
New Mexico	IV				602,958	1,151,156	8				602,958	1,151,156	8	6.1
North Carolina	VII	3,690	4,100	1	227,188	252,431	43	69,176	76,861	24	158,012	175,570	19	1.6
Oklahoma	VI				78,000	156,000	1				78,000	156,000	1	.8
Oregon	II				56,390	85,187	3	30,345	50,460	2	26,045	34,727	1	.3
South Carolina	VII	31,507	37,960	1	31,507	37,960	1				31,507	37,960	1	.3
South Dakota	V				194,073	220,792	13	56,855	63,173	7	137,218	157,619	6	1.4
Tennessee	VII				6,768	7,520	1	6,768	7,520	1			0	0
Texas	VI				118,800	194,424	4	105,765	173,579	2	13,035	20,845	2	.1
Utah	IV	[2] 44,113	[2] 68,626	1	1,607,029	2,918,783	32	11,430	15,240	1	1,595,599	2,903,543	31	16.2
Vermont	VIII				180,671	223,582	4	34,290	38,100	1	146,381	185,482	3	1.5
Washington	II	3,708	7,415	1	431,006	779,158	22	12,000	24,000	1	419,006	755,158	21	4.3
Wisconsin	V				256,088	514,879	14	7,020	14,040	2	249,068	500,839	12	2.5
Wyoming	IV				89,280	178,560	2	39,705	79,410	1	49,575	99,150	1	.5
Total		492,952	779,693	12	10,750,060	18,072,807	357	928,703	1,374,905	75	9,821,357	16,697,902	282	100.0

[1] Includes 2 amendments made during August which increased contract amounts.
[2] Includes 1 amendment made during August which increased contract amount.

TABLE III.—*Defense minerals exploration projects, regional distribution*

Region	Contracts executed in August 1952			Contracts executed through August 1952			Contracts canceled and terminated through August 1952			Contracts in force as of Aug. 31, 1952			
	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Government participation	Value of contract	Number	Percent distribution of Government part
I	$30,750	$41,000	1	$398,900	$529,782	6				$398,900	$529,782	6	4.0
II	139,058	278,115	3	2,917,096	5,143,770	108	$127,816	$234,160	9	2,789,280	4,909,610	99	28.4
III	205,552	275,329	4	1,572,182	2,381,629	42	284,253	352,741	9	1,287,929	2,028,888	33	13.1
IV	[1] 82,395	[1] 143,189	2	3,737,638	6,673,546	96	169,028	322,935	13	3,568,610	6,350,611	83	36.3
V				749,107	1,333,564	29	63,875	77,213	9	685,232	1,256,351	20	7.0
VI				652,786	1,019,322	17	165,384	256,361	7	487,402	762,961	10	5.0
VII	35,197	42,060	2	310,322	356,097	49	78,297	86,995	26	232,025	269,102	23	2.4
VIII				412,029	635,097	10	40,050	44,500	2	371,979	590,597	8	3.8
Total	492,952	779,693	12	10,750,060	18,072,807	357	928,703	1,374,905	75	9,821,357	16,697,902	282	100.0

[1] Includes 3 amendments made during August increasing contract amounts.

TABLE IV.—*Summary of disbursement data*

REGIONAL DISTRIBUTION CUMULATIVE THROUGH JULY 31, 1952

Region	Regional disbursements
I	$107,460.94
II	913,541.12
III	332,566.65
IV	1,022,766.21
V	271,848.22
VI	198,614.74
VII	91,853.09
VIII	66,865.79
Total	3,005,516.76

MONTHLY DISTRIBUTION THROUGH JULY 31, 1952

Month	Month-by-month disbursement	Cumulative disbursement data
1951—July	$12,125.62	$12,125.62
August	64,764.53	76,890.15
September	238,885.60	315,775.75
October	229,621.57	545,397.32
November	211,127.61	756,524.93
December	217,054.64	973,579.57
1952—January	261,280.43	1,234,860.00
February	245,613.20	1,480,473.20
March	231,786.38	1,712,259.58
April	298,113.56	2,010,373.14
May	346,528.97	2,356,902.11
June	329,879.73	2,686,781.84
July	318,734.92	3,005,516.76
Total through July 1952	3,005,516.76	

TABLE V.—*Terminated and certified projects*

Commodity	Projects terminated through Aug. 31, 1952				Projects certified through Aug. 31, 1952					Amount spent on certified as percent of amount spent on all terminated
	Number	Government participation	Value of contract	Amount Government participation spent	Number of projects certified	State(s)	Government participation	Value of contract	Amount Government participation spent	
Antimony	1	$12,685	$16,913	$8,378	None					
Asbestos	2	143,100	159,000	19,623	None					
Beryl-mica	6	43,875	48,750	15,971	2	South Dakota	$14,895	$16,550	$9,387	58.8
Cobalt-nickel	1	6,768	7,520	5,119	None					
Columbium-tantalum	1	3,184	3,538	1,312	None					
Copper	1	8,307	16,613	8,307	None					
Fluorspar	1	3,897	7,793	1,413	None					
Lead-zinc	8	38,354	76,709	33,212	2	Colorado; Washington.	22,000	44,000	22,000	66.2
Manganese	3	42,000	56,000	32,706	2	Arkansas	27,000	36,000	24,248	74.1
Mercury	1	29,580	39,440	29,580	None					
Mica	20	54,506	60,561	42,243	4	North Carolina	15,048	16,720	13,818	32.7
Rare earths	1	12,647	14,052	12,004	1	Idaho	12,647	14,052	12,004	100.0
Sulfur	2	88,545	177,089	37,545	1	Wyoming	39,705	79,410	19,752	52.6
Tungsten	6	59,422	79,230	[1] 48,795	2	California; Montana	27,745	36,994	[1] 19,486	39.9
Total	54	546,870	763,208	296,208	14		159,040	243,726	120,695	40.7

[1] Final payment to the operator has not yet been made on 1 tungsten project which has been certified. This project therefore is not reported in tables I, II, and III as terminated. However, to permit the comparisons for which this table was designed, an estimate of expenditures on this project has been included.

List of minerals exploration contracts in force as of May 31, 1952

Name of contractor	County	Commodity	Government participation	Contract value
ALASKA				
Zenda Gold Mining Co	Seward Peninsula	Tin ore	$54,000.00	$60,000.00
Admiralty-Alaska Gold Mining Co	Admiralty Island	Cobalt-nickel	108,000.00	120,000.00
Alaska Metals Mining Co	Fourth Judicial Division.	Tungsten	133,675.50	178,234.00
Alaska Copper Corp	Third Judicial Division.	Copper	56,274.00	112,548.00
ARIZONA				
Banner Mining Co	Pima	do	63,393.00	126,789.00
Do	do	do	67,894.50	135,789.00
Reed & Reed	Mohave	Lead-zinc	10,000.00	20,000.00
James P. Nash	Santa Cruz	Copper	19,300.00	38,600.00
American Asbestos Cement Corp	Gila	Asbestos	111,482.10	123,869.00
Eugene J. Meyer	Yavapai	Copper	2,095.00	4,190.00
Sherwood B. Owens	Cochise	Lead-zinc-copper	31,963.00	63,926.00
Yucca Mining & Milling Co	Mohave	Copper	34,948.00	69,896.00
ARKANSAS				
Gold, Ashley J. & Gold, Joe	Sevier	Antimony	12,684.75	16,913.00
Inland Mining Corp	Polk	Manganese	75,000.00	100,000.00
CALIFORNIA				
Philip Carey Manufacturing Co	Nevada	Asbestos	71,550.00	79,500.00
Northfield Mines, Inc	Inyo	Tungsten	33,540.00	44,720.00
Holmestake Mining Co	Imperial	do	14,250.00	19,000.00
Black Rock Mining Corp	Mono	do	89,250.00	119,000.00
Cordero Mining Co	Santa Clara	Mercury ore	150,621.00	200,828.00
Miller & Warnken	Darwin	Tungsten	45,000.00	60,000.00
Black Rock Mining Corp	Mono	do	46,217.63	61,623.50
Sierra Copper Co	Calaveras	Copper	8,306.50	16,613.00
California Quicksilver Mines, Inc	Lake	Mercury ore	29,580.00	39,440.00
Tungstar Corp. and Hanging Valley Tungsten Mines	Inyo	Tungsten	52,500.00	70,000.00
Glidden Co	Shasta	Lead-zinc-copper	147,150.00	294,300.00
Frederick Dumontier	Inyo	Asbestos	5,334.62	5,927.36
Harry E. Briggs	do	Lead-zinc	8,650.00	17,300.00
COLORADO				
Callahan Zinc-Lead Co	Gunnison	do	60,000.00	120,000.00
Lupton Mining Co	Clear Creek	do	20,000.00	40,000.00
Lead Carbonate Mines, Inc	San Juan	do	17,500.00	35,000.00
Landauer, Frank	do	Lead-zinc-copper	7,750.00	15,500.00
Silver Bay Mines, Inc	do	Lead-zinc	10,750.00	21,500.00
Shelby-Johnson Mines, Inc	Park	do	4,900.00	9,800.00
U. S. Oil & Development Corp	San Juan	Lead-zinc-copper	23,825.00	47,650.00
Cadwell Mining Co	Lake	Lead-zinc	44,961.00	89,922.00
Boulder Tungsten Mines, Inc	Boulder	Tungsten	20,868.75	27,825.00
Smith, John A., and Smith, Ben A	Clear Creek	Lead-zinc	12,500.00	25,000.00
East Ridge Co	San Miguel and Ouray.	Lead-zinc-copper	30,090.00	60,180.00
Beardsley, George L., and Arthur B	Custer	Lead-zinc	7,407.50	14,815.00
Eureka Tungsten	Boulder	Tungsten	15,000.00	20,000.00
Cold Spring Tungsten, Inc	do	do	158,310.00	211,080.00
Cherokee Mines	Larimer	Uranium	21,600.00	24,000.00
Stanford, Tom C	Boulder	Tungsten	16,687.50	22,250.00
Moreno-Cripple Creek Corp	San Juan	Lead-zinc-copper	38,000.00	76,000.00
Bachelor Development Co	Ouray	Lead-zinc	36,251.50	72,503.00
Tungsten Mining Co., Inc	Boulder	Tungsten	7,500.00	10,000.00
United Mining & Leasing Corp	Gilpin	Lead-zinc	10,000.00	20,000.00
Treasure Mountain Gold Mining Co	San Juan	do	37,600.00	75,200.00
Curtis C. Johnson	Silverton	Tungsten	3,750.00	5,000.00
Henry E. Kolego	San Juan	Lead-zinc-copper	7,300.00	14,600.00
Realty Co	Gilpin	Uranium	72,000.00	80,000.00
Callahan Zinc-Lead Co., Inc	Gunnison	Lead-zinc	15,305.00	30,610.00
Arthur N. Sweet	San Juan	do	22,362.50	44,725.00
Leadville Lead Corp	Park	do	50,400.00	100,800.00
Jos. M. Smith, Chas. R. Rugg	Boulder	Tungsten	18,300.00	24,400.00
Montana Mining Development Co	Clear Creek	Lead-zinc	7,500.00	15,000.00
Uranium Co. of America	Gilpin	Uranium	22,500.00	25,000.00
John Joyce	Lake	Lead-zinc	11,850.00	23,700.00
Brown, M. F., Ecceker, A. F., Munro, Roy.	Boulder	Tungsten	10,125.00	13,500.00
U. S. Oil & Development Corp	San Juan	Lead-zinc	19,300.00	38,600.00
Stanley Larson	Boulder	Tungsten	13,500.00	18,000.00
Lottie M. Loveless	La Plata	Copper	1,500.00	3,000.00

List of minerals exploration contracts in force as of May 31, 1952—Continued

Name of contractor	County	Commodity	Government participation	Contract value
FLORIDA				
National Lead Co	Duval	Rutile	$42,449.50	$31,837.42
GEORGIA				
Georgia-Carolina Mica Mining Co., Inc.	Troup	Beryl-mica	2,353.00	2,614.00
Arthur T. Anderson	Upson	Mica	4,959.00	5,510.00
Hale-Georgia Minerals Corp	Bartow	Manganese	21,871.50	29,162.00
IDAHO				
United Minerals Reserve Corp	Blaine	Lead-zinc	52,000.00	104,000.00
Hermada Mining Co	Elmore	Antimony	33,075.00	44,100.00
Day Mines, Inc	Shoshone	Lead-zinc-copper	144,000.00	288,000.00
Bradley Mining Co	Patterson	Tungsten	65,145.00	86,860.00
Paymaster, Inc	Blaine	Lead-zinc	21,500.00	43,000.00
Highland-Surprise Consolidated Mining Co.	Shoshone	do	100,000.00	200,000.00
Holtermans, Johan P	Custer	Fluorspar	3,896.50	7,793.00
Idaho Mining Co	Shoshone	Lead-zinc-copper	61,869.00	123,738.00
Bleazard, J. W., and G. S	Custer	Lead-zinc	4,200.00	8,400.00
Rhode Island Mining Co	Shoshone	do	11,950.00	23,900.00
Sunset Minerals, Inc	Pine Creek	do	31,862.50	63,725.00
Snoose Mining Co	Blaine	do	67,500.00	135,000.00
Hope Silver-Lead Mines, Inc	Bonner	do	18,000.00	36,000.00
McRae Tungsten Corp	Valley	Tungsten	15,263.25	20,351.00
White, Compton I	Bonner	Copper	28,655.00	57,310.00
Svensson, Oscar V	Elmore	Antimony	1,833.75	2,445.00
Silver Star-Queens Mines, Inc	Blaine	Lead-zinc	66,918.50	133,837.00
Sun Valley Lead-Silver Mines, Inc	do	do	14,192.00	28,384.00
Bradley Mining Co	Stibnite	Antimony	73,026.00	97,368.00
Lawrence Berrett	Bear Lake	Lead-zinc-copper	2,500.00	5,000.00
South Mountain Mining Co	Owyhee	do	18,130.00	36,260.00
Nabob Silver-Lead Co	Shoshone	Lead-zinc	71,725.00	143,450.00
Whitedelph Mining & Development Co.	Bonner	do	60,125.00	120,250.00
Funnell & Majer Mining Co	do	do	26,614.00	53,228.00
Gardner & Vance	Custer	do	7,000.00	14,000.00
Louis Buchman, L. S. Breckon, J. A. Norden.	do	Lead	26,925.00	53,850.00
Buckskin Mines, Inc	do	Lead-zinc	6,100.00	12,200.00
Donald D. Hanni	do	Lead-zinc-copper	17,000.00	34,000.00
Elmer Enderlin	do	Zinc	4,560.00	9,120.00
Chief Joseph Mines, Inc	Boundary	Tungsten	5,580.00	7,440.00
ILLINOIS				
Ozark-Mahoning Co	Hardin	Fluorspar	30,982.50	61,965.00
IOWA				
J. E. & Lula M. Miller	Dubuque	Lead-zinc	14,850.00	29,700.00
MAINE				
Beryllium Development, Inc	Oxford	Beryl	40,140.00	44,600.00
MICHIGAN				
Calumet & Hecla Consolidated Copper Co.	Houghton and Keweenaw.	Copper	284,096.50	568,193.00
MISSOURI				
National Lead Co	Madison	Cobalt-nickel	274,078.27	391,540.39
Shelton Mining Co	Jasper	Lead-zinc	7,000.00	14,000.00
American Zinc, Lead & Smelting Co	Franklin	do	32,500.00	65,000.00
Amedee A. Peugnet	St. Francois	Lead	2,100.00	4,200.00
MONTANA				
Mulcahy, William	Jefferson	Lead-zinc	2,546.15	5,092.30
J. E. Hall	Sanders	Copper	10,642.50	21,285.00
Columbia Mining Co., Inc	Lewis and Clark	do	12,158.90	24,317.80
Lewis B. Stark	Cascade	Lead-zinc	25,000.00	50,000.00
Cole, John W	Granite	Tungsten	52,500.00	70,000.00
Key, Roy W., and Durand, O. J	do	Lead-zinc	33,250.00	66,500.00
Dance, Albert and Jewell	Broadwater	do	8,970.00	17,940.00
Elkhorn Mining Co	Jefferson	Uranium	11,520.00	12,800.00

List of minerals exploration contracts in force as of May 31, 1952—Continued

Name of contractor	County	Commodity	Government participation	Contract value
MONTANA—continued				
Linton Mines	Missoula	Lead-zinc	$26,270.00	$52,540.00
American Alloy Metals, Inc	Beaverhead	Tungsten	42,438.00	56,584.00
Alberta K. Romerio	Jefferson	Lead-zinc	10,600.00	21,200.00
Edmund E. Pohl	Broadwater	Lead-zinc-copper	6,295.00	12,950.00
D. A. McNabb	Jefferson	Uranium	20,616.30	22,907.00
Castle Lead & Zinc Co	Meagher	Lead-zinc	49,925.00	99,850.00
Kootenay Copper Mines	Sanders	Copper	15,950.00	31,900.00
Amador Mining Co	Mineral	do	36,095.00	72,190.00
Taylor-Knapp Co	Granite	Manganese	68,250.00	91,000.00
Alps Mining & Milling Co	do	Tungsten	22,396.50	29,862.00
Florence Co	Cascade	Lead-zinc-copper	20,690.00	41,380.00
Bennett Mining Co	do	Lead-zinc	50,000.00	100,000.00
American Alloy Metals, Inc	Beaverhead	Tungsten	24,967.50	33,290.00
Ambassador Mines Corp	Sanders	Lead-zinc	11,524.50	23,049.00
McLure, William R	Granite	Tungsten	12,286.50	16,382.00
Elkhorn Mining Co	Jefferson	Uranium	23,125.50	25,695.00
Hughesville Silver & Lead Mining Co	Judith Basin	Lead-zinc	5,000.00	10,000.00
American Alloys Metals, Inc	Beaverhead	Tungsten	16,495.35	21,993.80
Pittsburg Silver Mining Co	Mineral	Lead-zinc-copper	5,585.00	11,170.00
Taylor-Knapp Co	Granite	Manganese	37,201.50	49,602.01
Elkhorn Mining Co	Beaverhead	Thorium	9,193.50	10,215.00
Glenn Zorn and C. E. Vanman	Cascade	Lead-zinc	11,200.00	22,400.00
Minerals Engineering Co	Beaverhead	Tungsten	83,460.00	111,280.00
David Nieminen, A. H. Eiselein & Maurice Nelligan.	Jefferson	Uranium	13,599.00	15,110.00
Commonwealth Lead Mining Co	Melione	Lead-zinc	25,290.00	50,580.00
Madisonian Mining & Milling Co	Madison	Asbestos	21,960.00	24,400.00
White Pinehead Co	Jefferson	Lead-zinc	14,350.00	28,700.00
James Young, Angus A. McDonald	Grant	Lead	1,500.00	3,000.00
West Slope Mining Co	Silver Bow	Tungsten	7,560.00	10,080.00
Elkhorn Mining Co	Jefferson	Lead-zinc	12,900.00	25,800.00
NEVADA				
United Minerals Reserve Corp	Elko	do	26,750.00	53,500.00
Bristol Silver Mines	Lincoln	do	90,814.00	181,628.00
Madison, J. A	Mineral	Tungsten	9,000.00	12,000.00
Cherry Creek Tungsten Mining Co	Cherry Creek	do	56,250.00	75,000.00
Baker, S. G. & Lovestedt, A. J	Douglas	do	2,141.25	2,855.00
Marshall Mining Co	Elko	Copper	25,210.68	50,421.37
Hamilton Consolidated Mines	White Pine	Lead-zinc	13,370.00	26,740.00
E. S. Perry & Robert McPherson	Nye	Antimony	1,980.00	2,640.00
Grand Deposit Mining Co	White Pine	Lead-zinc-copper	13,200.00	26,400.00
Dunnigan, W. F	Esmeralda	Mercury ore	6,693.75	8,925.00
Pennsylvania Mine	Lincoln	Copper	12,896.11	25,792.22
Mount Wheeler Mines, Inc	White Pine	Tungsten	56,607.00	75,476.00
Baltimore Camas Mines, Inc	do	do	15,210.00	20,080.00
NEW HAMPSHIRE				
Richard N. Berry	Grafton	Mica	11,700.00	13,000.00
Stafford Mines, Inc	do	Beryl-mica	5,760.00	6,400.00
NEW MEXICO				
Peru Mining Co	Grant	Lead-zinc-copper	112,500.00	225,000.00
Black Hawk Consolidated Mines	do	Cobalt-uranium	18,000.00	20,000.00
Chas. F. Williams	Santa Fe	Copper	83,700.50	167,401.00
Clark & Mathis	Luna	Lead-zinc	6,327.00	12,654.00
United States Smelting, Refining & Mining Co.	do	do	290,921.50	581,843.00
NORTH CAROLINA				
Gaston Strategic Minerals Co., Inc	Gaston	Mica	5,040.00	5,600.00
Franklin Developers, Inc	Franklin	do	3,240.00	3,600.00
Mica Development Corp	do	do	5,400.00	6,000.00
Powder Mill Mining Co	Avery	do	2,808.00	3,120.00
W. H. Hipps	Asheville	do	2,610.00	2,900.00
Lawrence Schmitt	Shelby	do	3,240.00	3,600.00
Yancey Mica Mines, Inc	Yancey	do	11,393.10	12,659.00
Hitchcock Corp	Cherokee	Steatite talc	29,267.00	32,519.00
Robinson, Henry Lee	Wilkes	Mica	3,352.50	3,725.00
Olivine Products Corp	Webster	Cobalt-nickel	13,852.80	15,392.00
Toe River Mining Co	Macon	Mica	4,050.00	4,500.00
Fred Anowood	Haywood	do	5,760.00	6,400.00
Piedmont Miners	Gaston	do	11,160.00	12,400.00
Non-Metallic Minerals Corp	Yancey	do	2,709.00	3,010.00

List of minerals exploration contracts in force as of May 31, 1952—Continued

Name of contractor	County	Commodity	Government participation	Contract value
NORTH CAROLINA—continued				
Tamarack Mining Co	Watauga	do	$2,043.00	$2,270.00
C. C. Burleson	Avery	do	2,389.50	2,655.00
Flynt & Keller	Macon	do	5,850.00	6,500.00
Rex L. Boone	Cleveland	do	3,600.00	4,000.00
Bess Gaston Mica Miners	Gaston	do	6,210.00	6,900.00
OKLAHOMA				
American Zinc, Lead & Smelting Co	Murray	Lead-zinc	78,000.00	156,000.00
OREGON				
E. F. Stauffer	Malheur	Antimony	26,045.25	34,727.00
Waite Minerals, Inc	Josephine	Copper	15,000.00	30,000.00
SOUTH DAKOTA				
Keenan Properties	Lawrence	Tin ore	90,000.00	100,000.00
Black Hills Keystone Corp	Pennington	Beryl-mica	20,772.00	23,080.00
Michaud, Francis and Stratten, Louis	Custer	do	8,010.00	8,900.00
Steward, Jack	Pennington	do	14,192.00	15,769.00
Carl L. Wiehe and B. A. Gira	Pringle	do	6,017.40	6,686.00
R. H. McHenry	Custer	Columbium-tantalum.	3,184.20	3,538.00
George Campbell and Glenn Ventling	do	Beryl-mica	5,895.00	6,550.00
L. D. Pitts	do	do	5,373.00	5,970.00
Belle Elridge Gold Mines, Inc	Lawrence	Lead-zinc	5,800.00	11,600.00
TEXAS				
Maravillas Minerals Co	Brewster	Mercury ore	7,837.50	10,450.00
UTAH				
Chief Consolidated Mining Co	Juab and Utah	Lead-zinc	231,710.00	463,420.00
New Park Mining Co	Wasatch	Lead-zinc-copper	117,197.60	234,395.20
Combined Metals Reduction Co	Tooele	Lead-zinc	111,000.00	222,000.00
Do	Salt Lake	do	27,550.00	55,100.00
Naildrive Mining Co	Wasatch	do	20,000.00	40,000.00
Park Utah Consolidated Mines Co	Summit and Wasatch.	do	48,633.00	97,266.00
Privateer Mining Co	Juab	do	4,031.00	8,062.00
Park Utah Consolidated Mines Co	Wasatch	do	21,000.00	42,000.00
East Utah Mining Co	do	Lead-zinc-copper	54,587.00	109,174.00
Harrington Mines Co	Beaver	Lead-zinc	62,620.00	125,240.00
New Quincy Mining Co	Summit	do	11,929.00	23,858.00
Louise W. Ganick	Millard	Tungsten	20,025.00	26,700.00
Silver King Coalition Mining Co	Summit, Wasatch, and Salt Lake.	Lead-zinc	160,767.03	321,534.06
Bowles-Heflin Mining Co	San Juan	Uranium	17,049.60	18,944.00
West Park Mining Co	Wasatch	Copper	8,100.00	16,200.00
Canary Mining Co	Dagget	do	24,052.50	26,725.00
American Fork Consolidated Mines	Utah	Lead-zinc	8,019.00	16,038.00
Woodman, Cecil R	Tooele	Tungsten	9,284.25	12,379.00
Lakeside Monarch Mining Co	do	Lead-zinc	5,000.00	10,000.00
Heber Lion Mining Co	Wasatch	Copper	2,500.00	5,000.00
Elkhorn Consolidated, Inc	Jefferson	Lead-zinc-copper	12,900.00	25,800.00
Kentucky-Utah Mining Co	Washington	do	17,500.00	35,000.00
White Canyon Mining Co	San Juan	Uranium	47,138.40	52,376.00
J. R. Simplot Co	Wayne and Garfield.	do	64,340.48	71,489.42
J. Walter Duncan, Jr	San Juan	do	38,871.00	43,190.00
Excalibur Uranium Corp	Emery	do	53,363.70	59,293.00
Abe Day	San Juan	do	9,810.00	10,900.00
VERMONT				
Ruberoid Co	Lemoiles and Orleans.	Asbestos	64,440.00	71,600.00
Vermont Copper Co., Inc	Orange	Copper	25,691.00	51,382.00
Ruberoid Co	Lamoille	Asbestos	56,250.00	62,500.00
WASHINGTON				
Ole Aavestrus & Chas. J. Weller	Ferry	Tungsten	24,525.00	32,700.00
Black Warrior Mining Co	Chelan	Lead-zinc-copper	25,123.75	50,247.50
Nasburg, Theodore	Stevens	Lead-zinc	3,780.00	7,560.00
American Zinc, Lead & Smelting Co	Pend Oreille	do	60,000.00	120,000.00
Goldfield Consolidated Mines Co	Stevens	do	11,527.50	23,055.00

List of minerals exploration contracts in force as of May 31, 1952—Continued

Name of contractor	County	Commodity	Government participation	Contract value
WASHINGTON—continued				
G. O. P. Antimony	Okanogan	Antimony	$17,400.00	$23,200.00
Talisman Mining & Leasing Co	Ferry	Lead-zinc-copper	22,000.00	44,000.00
Mines Management, Inc	Stevens	Lead-zinc	29,575.00	59,050.00
American Zinc, Lead & Smelting Co	Pend Oreille	do	58,250.00	116,500.00
C. O. Davis	Skagit	Lead	21,375.00	42,750.00
S. J. Holden & Associates	Chelan	Copper	3,800.00	7,600.00
Addy Mining Co	Stevens	Tungsten	15,967.50	21,290.00
Hartbauer, C. W. & N. C	do	Lead-zinc	5,000.00	10,000.00
Tungsten Mining & Milling Co	do	Tungsten	25,987.50	34,650.00
S. W. Zoldok	do	Lead-zinc	18,642.00	37,284.00
Ray R. Whiting, Jr	Yakima	Mercury	13,818.75	18,425.00
G. O. P. Antimony	Okanogan	Antimony	12,060.00	16,080.00
WISCONSIN				
Dodgeville Mining Co	Iowa	Lead-zinc	4,020.00	8,040.00
Scallon, E. P	Grant	do	3,750.00	7,500.00
Dodgeville Mining Co	Iowa	do	5,000.00	10,000.00
Vinegar Hill Zinc Co	Shullsburg	do	15,996.66	45,704.75
Calumet & Hecla Consolidated Copper Co.	Lafayette	do	79,259.00	158,518.00
Star Mining Co	Marinette	Asbestos	4,500.00	5,000.00
Dodgeville Mining Co	Iowa	Lead-zinc	3,750.00	7,500.00
Do	do	do	3,750.00	7,500.00
Do	do	do	5,000.00	10,000.00
Do	do	do	3,000.00	6,000.00
Vinegar Hill Zinc Co	Lafayette	do	34,220.19	68,440.38
D. H. & S. Mining Co	Iowa	do	5,000.00	10,000.00
WYOMING				
Porter, Kenneth L	Hot Springs	Sulfur	49,575.00	99,150.00

Following is a list of new minerals exploration contracts executed in the period from May 31, 1952, through July 31, 1952:

Name of contractor	County	Commodity	Government participation	Contract value
ALASKA				
Purkeypile, I. W. & S. E	Fort Gibbon Mining District.	Tin	$16,200.00	$18,000.00
CALIFORNIA				
Hazelton, Thomas A	Tuolumne	Tungsten	4,470.00	5,960.00
Sweeney Tungsten Co., Ltd	Riverside	do	22,350.00	29,800.00
Fitzgerald, R. E., Copper Hill Mine Venture, Dr. C. C. Hartwell, et al.	Amador	Copper-zinc	10,310.00	20,620.00
Hidden Hills Co	San Bernardino	Tungsten	12,600.00	16,800.00
COLORADO				
Moreno Cripple Creek Corp	Jefferson	Uranium	56,475.00	62,750.00
Jump, George	Boulder	Tungsten	9,000.00	12,000.00
Coughlin, Glenn & Henderson, Elzor L	do	do	3,600.00	4,800.00
Silver Bell Mines Co	San Miguel	Lead-zinc	39,560.00	79,120.00
IDAHO				
Bunker Chance Mining Co	Shoshone	Lead-copper	76,265.00	152,530.00
Northfield Mines, Inc	Lemhi	Cobalt-copper	72,030.00	102,900.00
Montana Coal & Iron Co	do	do	16,100.00	23,000.00
J. R. Simplot Co	do	Fluorspar	28,950.00	57,900.00
Etherton, Jack & Schmittroth, Walter	Shoshone	Tungsten	18,000.00	24,000.00
Champion Mine (Joseph L. Ausich; Michael Ausich; and Ann Ausich).	Custer	Lead-zinc	15,825.00	31,650.00
Consummes Gold Dredging Co	Valley	Monazite, columbium, tantalum.	25,942.50	28,825.00
Do	do	do	18,003.60	20,004.00

List of new minerals exploration contracts executed from May 31, 1952, through July 31, 1952—Continued

Name of contractor	County	Commodity	Government participation	Contract value
MISSOURI				
Amedee A. Peugnet et al	St. Francois and St. Genevieve.	Lead-zinc	$1,800.00	$3,600.00
Dale Mining Co	Newton	do	3,888.00	7,776.00
MONTANA				
Carlson, Albert F	Jefferson	do	12,450.00	24,900.00
Giulio, John	do	do	10,300.00	20,600.00
NEVADA				
Keever, Frank B	Lander	do	10,114.00	20,228.00
Snyder, Geo. and Snyder, Geo., Jr	do	do	13,897.00	27,794.00
Comet Mines, Inc	Lincoln	do	95,000.00	190,000.00
NEW JERSEY				
Busche, Fred	Morris	Graphite	925.00	1,850.00
Warren Foundry & Pipe Corp	do	Iron	141,850.00	283,700.00
NEW MEXICO				
Potter & Sims	Santa Fe	Tungsten	58,140.00	77,520.00
Byrne, Verne	do	Lead-zinc	12,369.00	24,738.00
Moseley, Ira L	Hidalgo	Copper	21,000.00	42,000.00
NORTH CAROLINA				
Yancey Mica Mines, Inc	Yancey	Mica	8,280.00	9,200.00
Robinson & West	Buncombe	do	6,930.00	7,700.00
Hendricks, F. B	Cleveland	do	3,150.00	3,500.00
Do	do	do	2,250.00	2,500.00
Do	do	do	1,440.00	1,600.00
Do	do	do	3,780.00	4,200.00
Do	do	do	1,350.00	1,500.00
Do	do	do	2,160.00	2,400.00
Sinkhole Miners	Mitchell	do	31,680.00	35,200.00
SOUTH DAKOTA				
Minerals Mills, Inc	Custer	do	1,080.00	1,200.00
TEXAS				
Carr Mining Co	Presidio	Lead	5,197.50	10,395.00
UTAH				
United Mining Development Co	Tooele	Lead-zinc	8,274.00	16,548.00
U. S. Smelting, Refining & Mining Co	Utah	do	308,677.50	617,355.00
Bullion Monarch Mining Co	Piute	Uranium	24,957.00	27,730.00
Park Heber Consolidated Mining Co	Wasatch	Lead-zinc-copper	13,500.00	27,000.00
WASHINGTON				
Pioneer Mining Co	Stevens	Lead-zinc	11,825.50	23,651.00
Jim Creek Mines, Inc	Pend Oreille	do	23,750.00	47,500.00
Laurence Hammond	Stevens	Beryl	10,890.00	12,100.00
WISCONSIN				
Eagle Picher Co	Lafayette	Lead-zinc	92,019.00	184,038.00
Mayer & Thiede Mining Co. (J. L. Mayer and Walter E. Thiede).	do	do	5,000.00	10,000.00

Following is a list of new minerals exploration contracts executed in the period from August 1, 1952, through August 31, 1952:

Name of contractor	County	Commodity	Government participation	Contract value
ALASKA				
Alaska Copper Corp.	Nome mining district.	Tungsten	$30,750.00	$41,000.00
CALIFORNIA				
New Idria Mining & Chemical Co.	San Benito	Mercury	182,511.75	243,349.00
COLORADO				
Joseph C. Wild & Wm. Frandson	Larimer	Beryl	2,250.00	2,500.00
IDAHO				
Sidney Mining Co.	Shoshone	Lead-zinc	100,145.00	200,290.00
Hypotheek Mining & Milling Co.	do	Zinc-lead	35,205.00	70,410.00
NEVADA				
Harold P. Newman	Nye	Copper	1,890.00	3,780.00
Aubrey Minney	Humboldt	Mercury	13,200.00	17,600.00
Irene Sykes	Esmeralda	Tungsten	7,950.00	10,600.00
NORTH CAROLINA				
Yancey Mica Mines, Inc.	Yancey	Mica	3,690.00	4,100.00
SOUTH CAROLINA				
Callahan Zinc-Lead Co., Inc.	Aiken	Monazite-columbium-rutile.	31,506.80	37,960.00
UTAH				
R. A. Glenny, R. A. & Scott M. Cutler.	Piute	Uranium	22,050.00	24,500.00
WASHINGTON				
Glacier Mining Co., Inc.	Whatcom	Copper	3,707.50	7,415.00

Following is a list of minerals exploration contracts which were terminated prior to May 31, 1952:

Name of contractor	County	Commodity	Government participation	Contract value
ARIZONA				
Ike W. Kusisto	Yavapai	Lead-zinc	$2,500.00	$5,000.00
ARKANSAS				
Westmoreland Manganese Corp.	Independence	Manganese	12,000.00	16,000.00
Do.	do	do	15,000.00	20,000.00
Arkansas Manganese Co., Inc.	Polk	do	15,000.00	20,000.00
CALIFORNIA				
Petroleum Investment Trust, Ltd.	Kern	Tungsten	10,527.00	14,036.00
G. McGuire Pierce	Fresno	do	11,250.00	15,000.00
Phillip Carey Manufacturing Co.	Trinity	Asbestos	71,550.00	79,500.00
Altoona Quicksilver Mining Co.	do	Mercury	67,839.00	90,452.00
COLORADO				
Cement Creek Leasing Co.	San Juan	Zinc-lead	2,425.00	4,850.00
Bonita Mining & Development Co., Inc.	do	do	16,399.50	32,799.00
Do.	do	do	9,000.00	18,000.00
Utze Lode Co.	Monarch and Chaffee.	Lead-zinc	10,000.00	20,000.00
Erickson & Baer	Dolores	do	1,600.00	3,200.00

List of minerals exploration contracts terminated prior to may 31, 1952—Continued

Name of contractor	County	Commodity	Government participation	Contract value
IDAHO				
L. S. Heller	Valley	do	$300.00	$600.00
Ruby Meadows Mining Co	Idaho	Monazite, cinnabar.	12,647.00	14,052.00
MISSOURI				
Bootman & Boswell Mining Co	Lawrence	Lead-zinc	4,934.40	9,868.80
MONTANA				
Golden Messenger Corp	Jefferson	Copper-lead-zinc	30,937.50	61,875.00
NEVADA				
David G. Wood	Douglas	Tungsten	4,650.00	6,200.00
NORTH CAROLINA				
Joseph H. Ledbetter	Macon	Mica	2,430.00	2,700.00
Bess Gaston Mica Co., Inc	Gaston	do	4,950.00	5,500.00
Harold E. Enloe	Macon	do	450.00	500.00
Do	do	do	2,934.00	3,260.00
Do	do	do	1,800.00	2,000.00
Pitt Mica Corp	do	do	2,371.50	2,635.00
E. H. Zachary	do	do	2,434.50	2,705.00
F. A. Judson	do	do	1,575.00	1,750.00
Trammell Mining Corp	Avery	do	3,060.00	3,400.00
Ernest Mica Co., Inc	Mitchell	do	1,170.00	1,300.00
Lawrence S. Penland	Macon	do	450.00	500.00
Hoke C. Meadows	do	do	2,750.40	3,056.00
Fred D. Cabe	do	do	4,396.50	4,885.00
SOUTH CAROLINA				
Piedmont Minerals, Inc	Spartanburg	do	4,581.00	5,090.00
OREGON				
Owen Pigmon	Crook	Mercury	145,305.0	20,460.00
SOUTH DAKOTA				
Black Hills Keystone Corp	Pennington	Beryl-mica	12,600.00	14,000.00
Lewis W. Collingwood	Custer	do	9,000.00	10,000.00
Walter S. Clifford	Pennington	do	12,149.10	13,499.00
TENNESSEE				
L. W. King and C. K. Scott	Bradley and Hamilton.	Cobalt	6,768.00	7,520.00
TEXAS				
National Lead Co	Fort Bend	Sulfur	48,839.50	97,679.00
Paulsel Mining Co	Brewster	Mercury	56,925.00	75,900.00
UTAH				
Star Dust Mine, Inc	Tooele	Tungsten	11,430.00	15,240.00
VERMONT				
Philip Carey Manufacturing Co	Orleans	Asbestos	34,290.00	38,100.00
WASHINGTON				
Mines Management, Inc	Stevens	Lead-zinc-cadmium.	12,000.00	24,000.00
WYOMING				
Continental Sulphur & Phosphate Corp.	Park	Sulfur	39,705.00	79,410.00

Following is a list of minerals exploration contracts which were terminated in the period from May 31, 1952, through July 31, 1952:

Name of contractor	County	Commodity	Government participation	Contract value
ARIZONA				
Sherwood B. Owens	Cochise	Lead-zinc-copper	$31,963.00	$63,926.00
Yucca Mining & Milling Co	Mohave	Copper	34,948.00	69,896.00
ARKANSAS				
Gold, Ashley J. & Gold, Joe	Sevier	Antimony	12,684.75	16,913.00
CALIFORNIA				
Philip Carey Manufacturing Co	Nevada	Asbestos	71,550.00	79,500.00
Sierra Copper Co	Calaveras	Copper	8,306.50	16,613.00
California Quicksilver Mines, Inc	Lake	Mercury ore	29,590.00	39,440.00
Frederick Dumontier	Inyo	Asbestos	5,334.62	5,927.36
COLORADO				
Beardsley, Geo. L. & Arthur B	Custer	Lead-zinc	7,407.50	14,815.00
Tungsten Mining Co., Inc	Boulder	Tungsten	7,500.00	10,000.00
Curtis C. Johnson	San Juan	do	3,750.00	5,000.00
Arthur N. Sweet	do	Lead-zinc	22,362.50	44,725.00
GEORGIA				
Georgia Carolina Mica Mining Co., Inc.	Troup	Beryl-mica	2,353.00	2,614.00
IDAHO				
Holtermans, Johan P	Custer	Fluorspar	3,896.50	7,793.00
Donald D. Hanni	do	Lead-zinc-copper	17,000.00	34,000.00
MONTANA				
Florence Co	Cascade	do	20,690.00	41,380.00
American Alloys Metals, Inc	Beaverhead	Tungsten	16,495.35	21,993.80
NEVADA				
Madison, J. A	Mineral	do	9,000.00	12,000.00
NEW HAMPSHIRE				
Stafford Mines, Inc	Grafton	Beryl-mica	5,760.00	6,400.00
NORTH CAROLINA				
Franklin Developers, Inc	Franklin	Mica	3,240.00	3,600.00
Mica Development Corp	do	do	5,400.00	6,000.00
Lawrence Schmitt	Shelby	do	3,240.00	3,600.00
Robinson, Henry Lee	Wilkes	do	3,352.50	3,725.00
Non-Metallic Minerals Corp	Yancey	do	2,709.00	3,010.00
Tamarack Mining Co	Watauga	do	2,043.00	2,270.00
C. C. Burleson	Avery	do	2,389.50	2,655.00
OREGON				
Waite Minerals, Inc	Josephine	Copper	15,000.00	30,000.00
SOUTH DAKOTA				
Michaud, Francis & Stratton, Louis	Custer	Beryl-mica	8,010.00	8,900.00
Carl L. Wiehe & B. A. Gira	Pringle	do	6,017.40	6,686.00
George Campbell & Glenn Ventling	Custer	do	5,895.00	6,550.00
UTAH				
J. Walter Duncan, Jr	San Juan	Uranium	38,871.00	43,190.00
WASHINGTON				
Mines Management, Inc	Stevens	Lead-zinc	29,575.00	59,050.00
WISCONSIN				
Vinegar Hill Zinc Co	Shullsburg	do	15,906.66	45,704.75

ODUCTION PROGRAM

on contracts which were
1952, through August 31,

ommodity	Government participation	Contract value
zinc	$67,500.00	$135,000.00
o	14,192.00	28,384.00
apsr	30,982.50	61,965.00
er	12,158.90	24,317.80
zinc	10,300.00	20,600.00
o	49,925.00	99,850.00
	2,808.00	3,120.00
	3,600.00	4,000.00
mbium-tan-um.	3,184.20	3,538.00
sten	24,525.00	32,700.00
zinc	4,020.00	8,040.00
	3,000.00	6,000.00

Contracts for expansion and maintenance of supply of metals, m

Commodity	Name of contractor and location of project	Type of contract	Quant Total	C l co
Aluminum	Aluminum Co. of America	Floor price	600,000	
	Point Comfort, Tex. (aluminum)			
	Wenatchee, Wash. (aluminum)			
	Bauxite, Ark. (alumina)			
Do	Aluminum Co. of America	Floor price	425,000	
	Rockdale, Tex. (aluminum)			
	Mobile, Ala. (alumina)			
	Surinam (alumina)			
Do	Kaiser Aluminum & Chemical Corp.	Floor price	500,000	
	Chalmette, La. (aluminum)			
	Baton Rouge, La. (alumina)			
	Jamaica, British West Indies (bauxite)			
Do	Kaiser Aluminum & Chemical Corp.	Floor price	500,000	
	Chalmette, La. (aluminum)			
	Baton Rouge, La. (alumina)			
	Jamaica, British West Indies (bauxite)			
Do	Kaiser Aluminum & Chemical Corp., Tacoma, Wash. (aluminum).	Floor price	41,000	
Do	Kaiser Aluminum & Chemical Corp., Spokane (Mead), Wash. (aluminum).	do	100,000	
Do	Reynolds Metals Co.	do	500,000	
	Jones Mill, Ark. (aluminum)			
	Troutdale, Oreg. (aluminum)			
	Corpus Christi, Tex. (aluminum and alumina).			
Do	Reynolds Metals Co., Longview, Wash. (aluminum).	Floor price	100,000	
Do	Reynolds Metals Co.	do	300,000	
	Arkadelphia, Ark. (aluminum)			
	Hurricane Creek, Ala. (alumina)			
Do	Societa Alluminie Ventoper Azioni, Italy (aluminum).	Purchase	2,500	
Do	Vereinigte Aluminum Works, Braunam Inn, Austria (aluminum).	do	3,000	
Chrome concentrates	American Chrome Co., Mouat mines, Stillwater County, Mont.	do	900,000	
Cobalt	National Lead Co. (*See* Nickel.)			
Do	Falconbridge Nickel Mines, Ltd. (*See* Nickel.)			
Columbium-tantalum	Fansteel Metallurgical Corp., North Chicago, Ill.	Floor price	382,500	
			650,000	
Copper	American Smelting & Refining Co., Silver Bell mine, Pima County, Ariz.	do	197,000,000	
Do	Anaconda Copper Mining Co., Yerington mine, Lyon County, Nev.	do	384,000,000	
Do	Banner Mining Co., Miser's Chest mine, Lordsburg, N. Mex.	Subsidy	5,400,000	
Do	Calumet & Hecla Consolidated Copper Co., 3 mines in Houghton and Keweenaw Counties, Mich.[1]	do	14,780,000	
Do	Calumet & Hecla Consolidated Copper Co., Osceola mine, Houghton County, Mich.	Floor price	106,000,000	
Do	Copper Cities Mining Co., Copper Cities, Gila County, Ariz.	do	192,500,000	
Do	Copper Range Co., Champion No. 4 east orebody, Painesdale, Houghton County, Mich.	Subsidy	6,372,000	
Do	Home Sound Co., Holden mine, Chelan County, Wash.	do	8,834,000	
Do	National Lead Co. (*See* Nickel.)			
Do	North Butte Mining Co., Granite Mountain mine, Butte, Mont.	Advance-repayment.	5,250,000	
Copper and molybdenum concentrates.	San Manuel Copper Corp., Pinal County, Ariz.	Floor price	730,000,000 32,120,000	

See footnotes at end of table.

E MATERIALS PROCUREMENT AGENCY

, minerals, and other materials [1] under the Defense Production Act of 1950, as amended, as of Aug. 31, 1952

Quantities involved			Effective date of contract	Date production starts [2]	Approximate term of contract	Commitment purchase price	Escalator clause [3]	Subsidies [4]	Advance authorized	
	Contingent purchase commitment	Unit							Amount	Terms of repayment
0	600,000	Short ton	Dec. 19, 1950		8½ years	Market	No	No	None	
				May —, 1952						
				June —, 1952						
				Aug. —, 1952						
0	425,000	Short ton	Oct. 19, 1951		7½ years	Market	No	No	None	
				Sept. —, 1952						
				Oct. —, 1952						
0	500,000	Short ton	Dec. 19, 1950		7½ years	Market	No	No	None	
				Dec. —, 1951						
				Nov. —, 1952						
				do						
0	500,000	Short ton	Nov. 6, 1951		7½ years	Market	No	No	None	
				Feb. —, 1953						
				Apr. —, 1953						
				Nov. —, 1952						
0	41,000	Short ton	Feb. 14, 1952	Sept. —, 1952	6 years	Market	No	No	$3,200,000	Repayment based on production.
0	100,000	do	Oct. 31, 1951	July —, 1952	do	do	No	No	8,000,000	Do.
0	500,000	do	Dec. 19, 1950		7½ years	do	No	No	None	
				Apr. —, 1953						
				[5]						
				Apr. —, 1952						
0	100,000	Short ton	Sept. 26, 1951	Sept. —, 1952	6 years	Market	No	No	12,000,000	Do.
0	300,000	do	Nov. 8, 1951		7½ years	do	No	No	None	
				June —, 1953						
				Jan. —, 1953						
0	2,500	Metric ton	Apr. 16, 1952	June —, 1952	5 months	$644.36 per metric ton.	No	No	None	
0	3,000	Short ton	Apr. 9, 1952	do	8 months	8,657 Austrian schillings.	No	No	None	
0	900,000	Dry short ton.	Apr. 21, 1952	Apr. —, 1953	9 years	$34.97 per dry short ton.	Yes	No	[6] 950,000	$1.30 per dry short ton sold and delivered to Government. If 80 percent of contractor's cash return exceeds amount of repayment, then additional payment of this amount will be made yearly.
0	382,500	Pound [7]	Apr. 25, 1952	July —, 1953	6 years	$4.90 per pound of contained Cb_2O_5.	Yes	No	None	
0	650,000	do [8]				$4.90 per running pound dry weight.				
0	177,000,000	do	Nov. 28, 1951	Nov. —, 1953	7½ years	$0.245 per pound or market.	Yes	No	None	
0	256,000,000	do	Nov. 10, 1951	do	8 years	$0.255 per pound or market.	Yes	Yes	None	
0	None	do	Mar. 3, 1952	Dec. 1, 1951	2 years	None	No	Yes	None	
0	None	do	Jan. 8, 1952	do	12–17 months	do	No	Yes	None	
0	106,000,000	do	July 18, 1952	July 1, 1955	10 years	$0.2525 per pound	Yes	Yes	None	
0	170,000,000	do	Sept. 24, 1951	Oct. —, 1954	7¾ years	$0.230 per pound	Yes	No	None	
0	None	do	Mar. 13, 1952	Jan. 1, 1952	2 years	None	No	Yes	None	
0	None	do	June 12, 1952	Feb. 1, 1952	1 year	do	No	Yes	None	
0	None	do	Sept. 19, 1951	Dec. —, 1951	21 months	do	No	No	60,000	1 cent per pound on first 300,000 pounds of contained copper, and 2 cents per pound thereafter until repaid with interest, but not later than June 30, 1953.
0	695,000,000	do [9]	Aug. 29, 1952	Mar. —, 1957	10 years	$0.24 per pound	Yes	No	None	
0	30,660,000	do [10]				$0.60 per pound				

Contracts for expansion and maintenance of supply of metals, minerals, o

Commodity	Name of contractor and location of project	Type of contract	Qu	
			Total	
Copper	Phelps-Dodge Corp., Bisbee east orebody, Bisbee, Ariz.	Floor price	300,000,000	
Do	Red Cub Copper Co., Red Cub mine, Shasta Costs Creek, Curry County, Oreg.[11]	do	100,000,000	
Do	Sam Knight Mining Lease, Inc., Christmas mine, Banner mining district, Gila County, Ariz.	Subsidy	2,390,000	
Do	White Pine Copper Co., White Pine mine, Ontonagon County, Mich.	Floor price	550,000,000	
Do	Yucca Mining & Milling Co., Inc., Antler mine, Yucca, Ariz.	Subsidy [12]	5,205,000	
Do	Campbell Chibougamau Mines, Ltd., Merrill Island, Dore Lake, Quebec, Canada.	Floor price	63,200,000	
Do	Falconbridge Nickel Mines, Ltd. (*See* Nickel.)			
Cryolite (synthetic)	Aluminum Ore Co., East St. Louis, Ill.[14]	Purchase	42,600	
Cryolite	Pennsylvania Salt Manufacturing Co., American firm processing ore from Greenland.	do	13,700	
Dolomite	Basic Refractories, Inc. (Defense Project, Inc.), Norlo, Ohio.	do [15]	1,600,000	
Fluorspar	Ozark Mahoning Co., Northgate, Jackson County, Colo.	Floor price	100,000	
Do	St. Lawrence Fluorspar, Inc., Wilmington, Del.; ore to be mined and partly processed in Canada.	do	150,000	
Lead	Gibbonsville Mining & Exploration Co. (*See* Zinc.)			
Do	Compania Minera de Huehuetenango, Guatemala, Central America.	Purchase	26,250	
Manganese (electrolytic)	Electro Manganese Corp., production at Knoxville, Tenn., from domestic and/or foreign ores.	Floor price	36,000,000	
Manganese	International Mining & Denver Equipment Co. (Manganese Producers, Inc.), American company concentrating (near El Paso, Tex.) low-grade ores from Mexico.	Purchase	50,000	
Do	Manganese Chemicals Corp., plant near Riverton, Minn., for concentration of ore from Cuyuna Range.	Floor price	2,625,000	
Do	Manganese, Inc., Three Kids property, Henderson, Nev.	Purchase	37,500,000	
Do	Westmoreland Manganese Corp., Cushman, Ark.	do	12,000,000	
Do	Associated Metals & Minerals, American company importing ore from India and/or Portuguese India.	do	[20] 40,000–50,000	
Do	El Gedehm Mining Corp., Eritrea	Advance repayment.	[21] 5,000	
Molybdenum	Climax Molybdenum Co., Storke level, Climax molybdenum mine, Lake County, Colo.	Floor price	[13] 155,100,000	
Do	Climax Molybdenum Co., Phillipson level, Climax molybdenum mine, Lake County, Colo.	Purchase	50,000,000	

See footnotes at end of table.

ls, and other materials[1] *under the Defense Production Act of 1950, as amended, as of Aug. 31, 1952*—Continued

Quantities involved			Effective date of contract	Date production starts[2]	Approximate term of contract	Commitment purchase price	Escalator clause[3]	Subsidies[4]	Advance authorized	
	Contingent purchase commitment	Unit							Amount	Terms of repayment
000	225,000,000	Pound	Sept. 24, 1951	Sept. —, 1955	8 years	$0.220 per pound	Yes	No	None	
000	100,000,000	do	June 12, 1952	June —, 1954	7 years [13]	$0.245 per pound	Yes	No	None	
000	None	do	Mar. 14, 1952	Dec. 1, 1951	2 years	None	No	Yes	None	
000	487,500,000	do	Feb. 26, 1952	Feb. —, 1955	9¾ years	$0.255 per pound	Yes	Yes	None	
000	None	do	Apr. 10, 1952	Dec. 1, 1951	3 years	None	No	Yes	None	
000	63,200,600	do	June 10, 1952	Dec. —, 1954	4½ years	$0.245 per pound	Yes	No	None	
600	42,600	Short ton	June 27, 1952	([13])	4 years	Based on $0.139 per pound (91 percent cryolite).	Yes	No	None	
700	13,700	do	May 5, 1952	June—, 1952	1 year	$260 per short ton	No	Yes	None	
000	[14] 1,600,000	do	Jan. 14, 1952	July—, 1952	5½ years	Market	No	No	None	
000	100,000	do	Oct. 9, 1951	May—, 1952	do	$60 per short ton	No	No	None	
000	150,000	do	June 27, 1952	June—, 1953	4 years	$65 per short ton	Yes	No	$1,250,000	$8.30 per short ton of acid-grade fluorspar flotation concentrates disposed of until repaid with interest. An additional payment yearly will be made for the amount that the cash return to the company less 50 percent of net profits exceeds the repayment.
250	26,250	do	Feb. 5, 1952	([17])	7½ years	Market between $0.17342 and $0.20342.	No	Yes	None	
000	36,000,000	Pound	Mar. 20, 1952	June —, 1953	7 years	$0.26 per pound	Yes	No	2,250,000	$0.066 per pound of new production disposed of on $2,000,000 plus interest (construction portion) and equal semiannual installments on $250,000 plus interest (working capital portion).
000	50,000	Long ton, 25 percent manganese.	June 30, 1951	Sept. —, 1951	2½ years	$19.30 per long-ton	No	No	None	
000	2,625,000	Long-ton unit.	Aug. 7, 1952	Aug. —, 1953	7¼ years	$3 per long-ton unit first 9 months.[18]	Yes	No	1,500,000	$0.670 per long-ton unit produced (either delivered to Government or sold to private industry). Repayment is increased when contractor's sale price to industry exceeds Government's floor price and when contractor sells iron fines from plant's operation.
000	37,500,000	do	Dec. 8, 1950 [19]	Sept. —, 1952	10 years	$1.50 per long-ton unit.	Yes	No	None	
000	12,000,000	do	Apr. —, 1952	Apr. —, 1953	7 years	$1.72 long-ton unit first 4 months.[18]	Yes	No	3,807,250	$0.350 per long-ton unit of manganese delivered to Government (or fines that may be sold to industry until repaid with interest).
000–000	[20] 40,000–50,000	Long dry ton.	Aug. —, 1952	([21])	9 months	$0.92½ long-ton unit of contained manganese.	No	No	None	
000	None	Long ton, 48 percent manganese.	June 10, 1952	July 10, 1952	3 months	$0.72 long-ton unit of contained manganese.	No	No	50,000	$10 per long dry ton of ore shipped.
000	[23] 85,000,000	Pound	Jan. 1, 1951	Jan. —, 1951	5 years	$0.90 per pound	Yes	No	None	
000	50,000,000	do	July 2, 1952	Jan. —, 1954	10 years	$1.24 per pound	Yes	No	None	

Commodity	Name of contractor and location of project	Type of contract	Quanti	
			Total	Co p com
Nickel (cobalt and copper).	National Lead Co., Fredericktown, Mo.	Purchase	9,261,000 6,930,000 7,087,500	
Do	Falconbridge Nickel Mines, Ltd., McKim and Hardy mines, Ontario, Canada (refinery in Norway).	do	75,000,000 1,500,000 37,500,000	7 3
Titanium (sponge)	E. I. du Pont de Nemours & Co., Newport and Edge Moor, Del.	Floor price	13,500	
Do	Titanium Metals Corp. of America, Henderson, Nev.	do	18,000	
Tin and tungsten	United States Tin Co., Seward Peninsula, Alaska.	do	800 450	
Tungsten	Republic of Korea (Sang Dong), Korea	Purchase	975,000	
Zinc	American Smelting & Refining Co. Van Stone mine, Stevens County, Wash.	Floor price	18,436	
Do	American Zinc, Lead & Smelting Co., Quick Seven zinc-lead mine, Jasper County, Mo.	do	11,000	
Do	American Zinc of Tennessee, North Friends Station, Jefferson County, Tenn.	do	11,600	
Do	Appalachian Mining & Smelting Co., Bumpass Cove, Embreeville, Tenn.	do	10,000	
Do	Mr. Vernon C. Davis, Kickapoo and Thompson mineral leases, Iowa County, Wis.	do	3,000	
Zinc and lead	Gibbonsville Mining & Exploration Co., Opal and Geraldine claims, Kellogg, Idaho.	Floor price: Zinc Lead	 790 2,460	
Zinc	MacArthur Mining Co., MacArthur mine, Baxter Springs, Cherokee County, Kans.	Floor price and advance repayment.	2,500	
Do	Mid-Continent Mining Corp., Alice mine, West Plains, Mo.	Floor price	7,400	
Do	National Zinc Co., Inc., American company, with concentrating to be done in Mexico and smelting in the United States.	do	20,000	
Do	Vinegar Hill Zinc Co., Mulcahy property, Lafayette County, Wis.	do	5,000	
Do	W. M. & W. Mining Co., Inc., Brewsterland mine, Ottawa County, Okla.	Subsidy	5,750	
Do	Volcan Mines Co., Peru, Ticlio, Peru—foreign company, but smelting to be done in United States.	Purchase	54,000	

[1] This tabulation does not include (1) contracts involving diversion of aluminum and fluorspar from sto (2) contracts involving excess-power cost subsidies in production of aluminum, (3) contracts for operation of G plants, (4) purchase contracts executed by EPS in procurement of tungsten and mica, (5) contract for sam manganese ore, (6) contract for manufacture of equipment used to process pig aluminum, and (7) contract c acceptance of aluminum sheet in lieu of pig for stockpile, (8) contracts for engineering and research.

[2] For floor price contracts and other contracts involving expansion of facilities, the dates shown in this ginning dates of capacity production except where actual (or estimated) dates of beginning of production a contracts involving subsidies for maintenance of production, the dates reflect the beginning of the term of p used as the basis of the subsidy payments. For purchase contracts, the dates reflect the initial date of deliv estimated, by the terms of the contract.

[3] Based on costs of production.

[4] Contract at over the ceiling price.

[5] 1951.

[6] The Government will also advance to the company equipment costing up to $2,165,000. Title to t remain in the Government.

[7] Crude columbian oxide.

[8] Potassium tantalum fluoride.

[9] Copper.

[10] Molybdenum concentrates.

[11] Original contract covered 4 mines, but contract was amended Aug. 11, 1952, to include only 3 mines.

[12] Letter of intent which expires at end of 4 months.

[13] Amendment to contract dated July 30, 1952, provides among other things that at the Government's req will enter into an agreement to sell to the Government at market price all production from the Antler mine.

and other materials[1] *under the Defense Production Act of 1950, as amended, as of Aug. 31, 1952*—Continued

Quantities involved		Effective date of contract	Date production starts[3]	Approximate term of contract	Commitment purchase price	Escalator clause[4]	Subsidies[4]	Advance authorized	
Contingent purchase commitment	Unit							Amount	Terms of repayment
9,261,000	Pound[24]	Oct. 11, 1951	Apr. —, 1953	6½ years	$0.474 per pound	Yes	No	$5,000,000	20 equal quarterly installments with interest beginning 6 months after production starts.
6,930,000	do[23]				$1.845 per pound				
7,037,500	do[9]				$0.214 per pound				
75,000,000	do[24]	Feb. 14, 1952	Jan. 1, 1952[25]	10 years	$0.5666 per pound or market.	No	Yes	6,000,000	To be liquidated by system of credits depending upon the maintenance of established production schedules. Cash payment, including interest, required by Mar. 31, 1957, to extent that production schedules were not maintained, ranging from 5 percent of the advance for a production deficiency between 1 percent to 2 percent to 100 percent for a deficiency of 10 percent or more.
1,500,000	do[26]				$1.8000 per pound or market.				
37,500,000	do[9]				$0.1900 per pound or market.				
13,500	Short tons (sponge).	July 24, 1952	Dec. —, 1954	10 years	$5 per pound or market.	No	No	14,700,000	$0.61 per pound of salable titanium metal sponge produced until repaid with interest or until June 30, 1962, whichever occurs first.
18,000	do	Aug. 1, 1951	Sept. —, 1952	do	do	No	No	15,000,000	$0.47 per pound of metal sponge produced for 10 years.
800	Short tons[27]	Mar. 23, 1951	June —, 1951	4¾ years	Market or ceiling	No	No	1,301,000	Repayment based on production.
450	do[28]								
975,000	Short-ton unit[29]	Mar. 31, 1952	Apr. —, 1952	5 years	$65 per short-ton unit WO_3[30]	(31)	No	None	
18,436	Short ton	Mar. 5, 1952	Oct. —, 1953	3½ years	$0.155 per pound	No	No	None	
11,000	do	Dec. 29, 1951	Dec. —, 1952	3 years	$0.170 per pound	Yes	No	None	
7,200	do	Nov. 5, 1951	Nov. —, 1952	do	$0.175 per pound	Yes	No	None	
10,000	do	May 8, 1951	do	2¼ years	do	No	No	None	
3,000	do	Apr. 2, 1952	Apr. —, 1953	3 years	$0.155 per pound	No	No	None	
790	do	June 12, 1952	Oct. —, 1952	2 years	do	No	No	None	
2,460	do				$0.150 per pound				
1,500	do	Dec. 4, 1951	May —, 1952	2 years	$0.175 per pound	No	No	45,000	$16 per short ton of concentrates sold up to 250 tons per month until repaid with interest.
7,400	do	July 16, 1952	Apr. —, 1953	2¼ years	$0.160 per pound	No	No	None	
20,000	do	Oct. 17, 1951	Oct. —, 1952	5 years	$0.165 per pound	No	No	None	
5,000	do	June 30, 1951	June —, 1952	3 years	$0.175 per pound	No	No	None	
None	do	June 27, 1952	Feb. 1, 1952	23 months	None	No	Yes	None	
13,680	do	Sept. 24, 1951	Jan. —, 1953	5¼ years	$0.175 per pound	No	No	None	

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[14] Letter of intent which expires at end of 3 months.
[15] Late 1952.
[16] The Government is not committed to purchase any of the output but has the option of purchasing up to 100 percent of the output produced under the contract.
[17] Early 1954.
[18] Price to be lower after this period.
[19] Four subsequent amendments. Amendment No. 1, dated July 7, 1951, placed contract under Defense Production Act. Contract was formerly under Strategic and Critical Materials Stockpiling Act of 1946.
[20] Variance at option of contractor.
[21] Fourth quarter, 1952.
[22] Contract also includes optional purchases of up to 50 percent of production through 1955.
[23] Total production includes 20,000,000 pounds to be delivered to the Government stockpile. The Government is committed to buy under the Defense Production Act 85,000,000 pounds if it cannot be sold to industry.
[24] Nickel.
[25] Cobalt.
[26] Date reflects the beginning of term of production.
[27] Tin.
[28] Tungsten trioxide concentrates.
[29] Tungsten trioxide.
[30] Less transportation, insurance, and incidental charges not over $2 per short-ton unit ($WO_3$).
[31] The price will be renegotiated after a 2-year period and annually thereafter.

Loans certified by DMPA to RFC for expansion of metals and minerals facilities under sec. 302 of the Defense Production Act, as amended, as of Aug. 31, 1952

Commodity	Name and address of firm	Certified by DMPA		Approved by RFC	
		Date	Amount	Date	Amount
Beryl and mica	John Ross, Custer, S. Dak	Mar. 7, 1952	$45,545	Mar. 28, 1952	$44,545
Beryl, mica and feldspar.	The Bethel Corp., Bethel, Maine.	Dec. 12, 1951	425,000	Pending	
Copper	San Manuel Copper Corp., Superior, Ariz.	May 19, 1952[1]	111,288,000	July 10, 1952	94,000,000
Copper and lead.	Copper Hill Mine, San Francisco, Calif.	Dec. 12, 1951	120,000	Withdrawn	
Graphite	Alabama Flake Graphite Co., Birmingham, Ala.	June 11, 1952[2]	250,000	Pending	
Iron ore	Imperial Mining Co., Inc., Poplar Bluff, Mo.	July 24, 1952	60,000	do	
Lead	Homestead Mining Co., Platteville, Wis.	Dec. 12, 1951	238,388	Jan. 23, 1952	240,000
Lead and zinc	Chief Consolidated Mining Co., Salt Lake City, Utah.	Mar. 19, 1952	120,000	Apr. 14, 1952	120,000
Do	Gibbonsville Mining & Exploration Co., Spokane, Wash.	May 1, 1952	62,000	June 23, 1952	62,000
Do	New Diggings Mining Co., Platteville, Wis.	Apr. 16, 1952	60,000	Aug. 15, 1952	54,000
Do	Oscar A. Oesterle, California, Mo.	Apr. 18, 1952	125,000	Pending	
Lime rock	Columbia River Lime Co., Vancouver, Wash.	Mar. 18, 1952	97,605	Apr. 28, 1952	92,000
Manganese	Irving G. Irving, Butte, Mont	Dec. 12, 1951	65,000	Disapproved	
Do	Peter Antonioli, Butte, Mont	Dec. 12, 1951	42,020	Feb. 18, 1952	42,000
Tungsten	Cobb & Weldon, Boulder, Colo	June 13, 1952	20,500	July 8, 1952	20,500
Do	Tungstar Corp. and Hanging Valley Tungsten Mines, Hollywood, Calif.	Dec. 12, 1951	75,083	Feb. 5, 1952	75,000
Do	Tungsten Mining & Milling Co., Spokane, Wash.	do	50,000	Jan. 8, 1952	50,000
Do	U. S. Tungsten Milling Co. and U. S. Tungsten Mines, Fresno, Calif.	Apr. 30, 1952	256,215	Pending	
Do	W. A. Noon, Drummond, Mont.	Jan. 7, 1952	60,000	Mar. 6, 1952	60,000
Zinc	Piquette Mining Co., Platteville, Wis.	May 1, 1952	144,000	June 9, 1952	144,000
Do	Shelton Mining Co., Joplin, Mo.	Mar. 21, 1952	85,000	May 22, 1952	85,000

[1] Date of final amendment. Date of original certification (for $100,969,000), was Mar. 26, 1952.
[2] Date of final amendment. Date of original certification (for $550,000) was Feb. 9, 1952.

Loans certified by DMPA to Export-Import Bank of Washington for expansion of metals and minerals facilities under sec. 302 of the Defense Production Act, as amended, as of Aug. 31, 1952

Commodity	Name and address of firm	Certified by DMPA		Approved by Export-Import Bank	
		Date	Amount	Date	Amount
Copper and cobalt.	Kilembe Mines, Ltd., Uganda, East Africa.	Aug. 19, 1952	$7,500,000	Pending	
Manganese	Industria e Comercio de Minerios, S. A., Amapa, Brazil.	Aug. 27, 1952	15,000,000	do	
Zinc	Zinc Nacional, S. A., Mexico	June 18, 1952	337,500	June 19, 1952	$337,500
Cobalt and copper.	Baluba Mines, Ltd., Northern Rhodesia.	Aug. 29, 1952	21,000,000	Pending	

DEFENSE MATERIALS PROCUREMENT AGENCY,
Washington 25, D. C., September 4, 1952.

Mr. GEORGE SOULE,
Consultant, Committee on Interior and Insular Affairs,
Room 1324, House Office Building, Washington 25, D. C.

DEAR MR. SOULE: Complying with your request, I enclose a table which contains the name of the company or mine applying for access

road assistance, the location, the length of road, cost, and commodity produced, for all access roads which have been certified up to September 1, 1952.

The certification of access roads are made by the Administrator of the Defense Materials Procurement to the Commissioner of Public Roads, in accordance with the provisions of section 12 of Public Law 769, Eighty-first Congress, Federal-Aid Highway Act of 1950, and by delegation of authority dated March 3, 1952, from the President.

Funds for access roads to mines producing strategic and critical metals and minerals are appropriated by the Congress as a part of the Bureau of Public Roads appropriations. At the present time, the funds appropriated for this purpose have been expended and certifications made since August 18, 1952, have not been programed.

The average cost of all roads certified, exclusive of roads certified for the benefit of the Atomic Energy Commission, have cost less than $5,000 per mile.

Very truly yours,

STANLEY M. WALKER,
Chief, Facilities Section, Mining Requirements Division.

Roads certified for construction by the Mining Requirements Division, Defense Materials Procurement Agency, up to Sept. 1, 1952 (exclusive of roads to uranium properties)

Mine or mining company	Location	Length of road	Cost	Type ore
		Miles		
Calera Mining Co	Lemhi County, Idaho	46.35	$288,050	Cobalt-copper.
Bradley Mining Co	Stibnite, Idaho (snow removal).		15,000	Tungsten.
Strawberry Tungsten Mine	Bishop, Calif	15	20,000	Do.
U. S. Vanadium Co	do	1	17,000	Do.
J. R. Simplot Co	Lemhi County, Idaho	15.6	85,100	Fluorspar.
Iron County Commissioners	Iron County, Utah	10.2	60,000	Iron.
Nevada-Massachusetts Co	Tungsten, Nev	8.5	154,000	Tungsten.
Crested Butte Mining & Milling Co.	Crested Butte, Colo	4	38,000	Zinc.
Black Pearl Mine	Bagdad, Ariz	13.5	92,000	Tungsten.
Cashier-Crescent Mine	Montezuma, Colo	3	2,400	Lead-copper.
Nevada Scheelite, Inc	Mineral County, Nev	22	28,000	Tungsten.
Ruberoid Co	Hyde Park, Vt	4	63,000	Asbestos.
Bagdad Copper Corp	Bagdad, Ariz	26	104,000	Copper-tungsten.
Locarno Mine	Kern County, Calif	2	12,000	Tungsten.
Blythe Manganese Co	Blythe, Calif	9	45,000	Manganese.
Sun Valley Lead-Silver Mines, Inc.	Blaine County, Idaho	10	66,000	Lead-zinc.
Charleston Hill National Mines	Goiconda, Nev	21.1	12,450	Manganese.
Nabob Development Co	Clear Creek County, Colo	2.3	5,500	Lead.
Moreno Cripple Creek Corp	Silverton, Colo	2.2	8,900	Lead-zinc-copper.
Venture Leasing Co	do	1.9	8,000	Do.
Lupton Mining Co	Clear Creek County, Colo	.12	1,950	Lead-zinc.
Black Rock Mining Corp	Lincoln County, Nev	35	66,000	Tungsten.
Van Stone Mine	Northport, Wash	8.12	68,135	Lead-zinc.
Hudspeth Mining Co	Hudspeth County, Tex	9	20,250	Fluorspar.
High Plateau Mine	Del Norte County, Calif	24	28,500	Chrome.
Fred Statts	Delta, Utah	8.9	12,000	Fluorspar.
Standard Slag Co. (Stokes)	Nye County, Nev	6	23,000	Iron.
Ross Basin Mining Co	San Juan County, Colo	0.4	4,000	Lead-zinc.
U. S. Vanadium Co. (No. 2)	Bishop, Calif	2.5	25,000	Tungsten.
Barton Mines Corp	Warren County, N. Y	3.5	36,000	Garnet.
Bradley Mining Co. (No. 2)	Stibnite, Idaho (snow removal).		30,000	Antimony.
United States Tin Corp	Second judicial district, Alaska.	26.5	200,000	Tin-tungsten.
Black Rock Mining Corp. (No. 2)	Bishop, Calif	10	57,000	Tungsten.
Nevada Monarch Mining Co	Lincoln County, Nev	5	22,000	Copper-lead.
Pawnee Mine, Inc	Riverside County, Calif	3.5	12,500	Tungsten.
Anaconda Copper Co	Alpine County, Calif	13	295,000	Sulfur-copper.
Zero Tunnel (Smith)	Clear Creek County, Colo	1	1,330	Zinc.
Realty Company, The	Garfield County, Utah	36	151,200	Vanadium-uranium.
Big Bend National Park	Brewster County, Tex	19.9	98,000	Fluorspar.

GENERAL SERVICES ADMINISTRATION
EMERGENCY PROCUREMENT SERVICE

Status of mineral-purchase programs as of Sept. 29, 1952

Domestic tungsten program	50,884 short ton units accepted.
Manganese program:	
Butte, Mont., depot	In operation; 2,120 tons accepted.
Philipsburg, Mont., depot [1]	In operation; 371 tons accepted.
Deming, N. Mex., depot	In operation; 7,640 tons accepted.
Wenden, Ariz., depot	Pending; depot expected to be open in about 60 days. Delay caused by unforeseen difficulties.
Nation-wide carload program	In operation; 50 long tons accepted.
Chrome program: Grants Pass, Oreg., depot.	In operation; 13,278 tons accepted.
Mica program:	
Spruce Pine, N. C	In operation; 16,115 pounds of block mica accepted.
Custer, S. Dak	In operation; 4,737 pounds of block mica accepted and 13,355 pounds of hand-cobbed mica accepted.
Franklin, N. H	In operation; 2 lots of block mica and 3,086 pounds of hand-cobbed mica accepted.

[1] 440 tons erroneously reported on previous reports.

EXTRACTS FROM OFFICE OF DEFENSE MOBILIZATION REPORT ON BORROWING AUTHORITY FOR THE QUARTER ENDING JUNE 30, 1952

* * * * * * *

TABLE I.—*Program emphasis in second quarter*

Program	Gross value of actual transactions consummated				Probable ultimate net cost to United States on actual transactions consummated			
	Second quarter of calendar year 1952		Cumulative to June 30, 1952		Second quarter of calendar year 1952		Cumulative to June 30, 1952	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Total	1,185,456	100	4,867,320	100	188,102	100	406,868	100
Titanium	300,000	25	320,000	07	29,700	16	29,700	07
Manganese	296,161	25	363,127	07	38,757	21	58,022	14
Rubber	116,732	10	652,058	14				
Tungsten	100,424	08	134,805	03	15,091	08	20,548	05
Machine tool	78,916	07	1,187,334	24	4,788	02	27,214	07
Molybdenum	72,500	06	218,750	04	23,672	13	27,822	07
All other	220,723	19	1,991,246	41	76,094	40	243,562	60

The probable ultimate net cost, to the U. S. Government of gross transactions consummated through June 30, 1952, was increased by about $188 million during the quarter bringing the cumulative probable ultimate cost to $407 million. The titanium and manganese transactions during the past quarter accounted for over $68 million of the estimated additional probable ultimate net cost as illustrated in table I.

Table II summarizes all transactions consummated through June 30, 1952, by the responsible executing agencies and by type of assistance.

This report is based on separate reports submitted by each of the responsible executing agencies. The basis of determination of the estimated ultimate net cost to the U. S. Government of individual programs reflect the latest reevaluation of the programs by the responsible agencies.

TABLE II.—*Quarterly report on utilization of borrowing authority under section 304 (b), Defense Production Act, as amended*

[Transactions consummated as of June 30, 1952, and borrowing authority authorized]

	Borrowing authority certified to date			Transactions consummated			
				Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated	
	Total	Probable ultimate net cost	Working capital	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952
Summary by agency: Total	$1,343,708	$663,127	$680,581	$1,185,456	$4,867,320	$188,102	$406,868
Defense Materials Procurement Agency	1,086,335	606,087	480,248	1,169,149	4,597,868	184,751	384,433
Reconstruction Finance Corporation	199,793	----------	199,793	12,402	199,793	----------	----------
Department of Interior	9,748	9,748	----------	2,026	9,748	2,026	9,748
Department of Agriculture	47,292	47,292	----------	1,541	59,371	1,325	12,687
Export-Import Bank of Washington	540	----------	540	338	540	----------	----------
Summary by type of assistance: Total	1,343,708	663,127	680,581	1,185,456	4,867,320	188,102	486,868
Purchase and resale	----------	----------	----------	500,665	1,559,506	21,190	165,109
Commitment to purchase	----------	----------	----------	636,342	2,993,848	154,522	180,151
Direct loans	----------	----------	----------	12,740	200,333	----------	----------
Exploration, grants for, etc	----------	----------	----------	2,026	9,748	2,026	9,748
Industrial installations	----------	----------	----------	6,631	35,650	4,642	24,955
Other	----------	----------	----------	27,052	68,235	5,722	26,905

As shown in table III, of the total borrowing authority of $2,100 million authorized by statute, certifications to date amount to approximately $1,344 million, leaving an unobligated balance of borrowing authority available for future certifications of approxii ıtely $756 million.

TABLE III.—*Status of borrowing authority as of June 30, 1952*

[Thousands of dollars]

Total borrowing authority authorized by statute	2,100,000
Less certifications to date	1,343,708

To—	Total	Probable ultimate net cost [1]	For working capital [2]
Defense Materials Procurement Agency	1,086,335	606,087	480,248
Reconstruction Finance Corporation	199,793		199,793
Export-Import Bank of Washington	540		540
Department of Agriculture	47,292	47,292	
Department of the Interior	9,748	9,748	
Total certified	1,343,708	663,127	680,581

Balance available for certification	756,292

[1] When the funds reserved for probable ultimate net cost of a program are sufficient and can be utilized initially for working-capital purposes such is done to accomplish maximum utilization.

[2] Funds required for working-capital purposes are used to finance loans, advances to contractors, inventory purchases for resale, and other recoverable expenditures.

These transactions were carried out under section 304 (b) of the Defense Production Act, as amended, which authorizes designated agencies, with Presidential approval, to incur obligations of $2.1 billion for the following purposes: direct loans; commitments to purchase metals, minerals and certain other raw materials for Government use or resale; projects designed to encourage exploration; development and mining of strategic and critical metals and minerals; installations of equipment; and other special projects in the national interest, the authority for which is not otherwise in existing legislation.

The obligations for these purposes are financed by borrowings from the Treasury. The 1951 amendment permits commitments to exceed the total authorized borrowing authority of $2.1 billion so long as the probable ultimate net cost to the United States Government of gross transactions consummated does not exceed this amount. In addition to financing probable ultimate net cost to the Government, the borrowing authority must also finance working-capital requirements, as reflected in this report, for programs involving loans, advances to contractors, inventory purchases for resale, and other recoverable expenditures. Programs undertaken must be certified as essential by either the Administrator of the Defense Production Administration, the Secretary of Agriculture, or the Administrator of the Reconstruction Finance Corporation.

* * * * * * *

Section 304 (b) of the Defense Production Act, as amended, provided the President with the authority to authorize borrowings from the Treasury, not to exceed $2.1 billion, for the purpose of implementing sections 302 and 303 of the act. The President has delegated authority to the several executing agencies to authorize borrowings for programs and types of assistance under their respective jurisdictions up to certain stated amounts. As of June 30, 1952, these authorizations were as follows:

Defense Production Administration	$1, 800, 000, 000
Department of Agriculture	65, 000, 000
Reconstruction Finance Corporation	25, 000, 000
Reserve for contingencies	210, 000, 000
Total	2, 100, 000, 000

The Defense Production Administration has, in turn, delegated portions of its authorized borrowing authority of $1.8 billion as follows:

Defense Materials Procurement Agency	$1, 143, 000, 000
Reconstruction Finance Corporation	357, 000, 000
Export-Import Bank	65, 000, 000
Department of the Interior	10, 000, 000
Unallocated by Defense Production Administration	225, 000, 000
Total	1, 800, 000, 000

When borrowing authority is certified for any given program or assistance, by the appropriate executing agency, the total amount certified is certified as either "probable ultimate net cost," "working capital," or a combination of the two, depending on the type of assistance involved.

"Probable ultimate net cost" is the estimate made, at the time of certification, of the eventual cost of the program or assistance to the Government. That portion certified as "working capital" represents funds which are expected to be returned to the Government, and are hence in the nature of a revolving fund. The basis for determination as set forth in the report explain how these individual figures are computed.

It will be noted that in several instances in the report there are gross transactions listed although no borrowing authority has been certified. The explanation is as follows: It is oftentimes necessary for the Defense Materials Procurement Agency to enter into a commitment to purchase the output of certain facilities in order to protect the company against the possibility of the market not being able to absorb the output. Since in most cases it is unlikely that these commitments will be exercised, because of the excess of demand over supply, no borrowing authority is certified for these transactions. If, at a later date, the commitment is exercised borrowing authority can, at that time, be certified.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
1,343,708	663,127	680,581		Total	1,185,456	4,867,320	188,102	406,868	
				Aluminum:					
			DMPA	Commitment to purchase		153,600			Contracts cover commitment to purchase aluminum from expanded capacity. Because of growing civilian and military demands, it is assumed that the commitments will not be exercised; consequently, no probable ultimate net cost.
20,000		20,000	DMPA	do		289,800			Do.
			DMPA	do		108,000			Do.
583	583		DMPA	Other					Program canceled July 9, 1952.
			DMPA	Commitment to purchase		180,000			Contracts cover commitment to purchase aluminum from expanded capacity. Because of growing civilian and military demands, it is assumed that the commitments will not be exercised; consequently, no probable ultimate net cost.
3,200		3,200	DMPA	do		14,400			Do.
1,800	1,800		DMPA	Other	14,580	14,580	1,800	1,800	Subsidy to cover excess power costs from accelerated completion of new facilities.
30,062	30,062		DMPA	Other	2,433	21,394	2,433	21,394	Subsidy to cover excess power costs of reactivated facilities and excess power costs resulting from water shortages in Pacific Northwest.
2,095	900	1,195	DMPA	Purchase and resale	2,095	2,095	900	900	Contract provides for purchase of foreign aluminum at approximately 31½ cents per pound and resale at domestic ceiling of 18 cents per pound, the loss to be absorbed in probable ultimate net cost.

See footnotes at end of table, p. 53.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from—Continued

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
190	----------	190	DMPA	Purchase and resale	190	190	----------	----------	Contract provides additional financing for aluminum purchased with MSA funds. No loss anticipated.
3,735	----------	3,735	DMPA	Other	8,550	8,550	----------	----------	Program covers the resale of equipment liability for which was acquired in connection with cancelation of canceled aluminum expansion contract. No loss anticipated at this time.
60	----------	60	RFC	Direct loan	−110	60	----------	----------	Interest income assumed to offset all expenses and losses.
178	178	----------	Interior	Antimony: Explorations, grants for, etc.	----------	178	----------	178	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
336	336	----------	Interior	Asbestos: Explorations, grants for, etc.	56	336	56	336	Do.
7,752	5,752	2,000	DMPA	Beryllium: Program (DMPA-107-11—DPA-179).	----------	----------	----------	----------	No consummated contracts.
169	----------	169	RFC	Beryllium and mica: Direct loan	----------	169	----------	----------	Interest income assumed to offset expenses and losses.
119	119	----------	Interior	Beryl-mica: Explorations, grants for, etc.	51	119	51	119	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of recovery.
26,450	25,850	600	DMPA	Chrome: Commitment to purchase	45,438	45,438	25,850	25,850	Probable ultimate net cost is estimated as follows: (a) $14.10 per ton on 900,000 tons of chromic oxide to allow for resale below the purchase price of $35.47 per ton; (b) $13 per ton for 900,000 tons for absorption of shipping charges to consuming points; (c) $1,452,000 for estimated loss on Government investment.

10,323	7,123	3,200	DMPA	Cobalt: Program (DMPA-75-11—DPA-147).					No consummated contracts.
502	502		Interior	Cobalt-Nickel: Exploration, grants for, etc.	106	502	106	502	The money advanced for exploration is treated as recoverable, since the variables involved preclude any reliable estimate of recovery.
3	3		Interior	Columbium-Tantalium: Exploration, grants for, etc.		3		3	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
60,250	60,200	50	DMPA	Columbite, Tantalite: Program (DMPA-54-11—DPA-123):					
				Purchase and resale	5,307	5,307	1,195	1,195	Probable ultimate net cost estimated as follows: (*a*) 40,000 pounds of crude columbium oxide purchased at $4.90 per pound for resale to industry at $2 per pound; (*b*) 342,500 pounds of crude columbium oxide purchased at $5.15 for resale to industry at $2 per pound.
				Commitment to purchase	54,000	54,000	27,090	27,090	Program provides an incentive bonus estimated to average $1.80 per pound for 15,000,000 pounds of combined columbium-tantalum pent-oxides. This amount, plus the expenses of storage, weighing, etc. Estimated at $90,000, constitutes the probable ultimate net cost.
907	907		Interior	Copper: Exploration, grants for, etc.	79	907	79	907	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of recovery.
58,051		58,051	RFC	Direct loan	11	58,051			Interest income assumed to offset expenses and losses.
84,392	68,877	15,515	DMPA	Program (DMPA-97-11—DPA-169):					
				Commitment to purchase		65,280			Contract covers commitment to purchase 256,000,000 pounds of copper at 25.5 cents per pound of which 227,555,555 pounds are to be produced after June 30, 1954. No loss anticipated on commitments before June 30, 1954. Losses on commitments thereafter are estimated at 1¼ cents per pound.

See footnotes at end of table, p. 53.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from—Continued

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
				Copper—Continued					
				Program (DMPA-87-11—DPA-169)—Continued					
				Commitment to purchase		43,365	194	1,610	Contract covers commitment to purchase 177,000,000 pounds of copper at 24.5 cents per pound of which approximately 161,000,000 pounds is scheduled for production after June 30, 1954. No loss anticipated on commitments prior to June 30, 1954; loss on commitments thereafter is estimated at 1 cent per pound.
				----do		39,100		1,063	Contract covers commitment to purchase 170,000,000 pounds at 23 cents per pound. Probably ultimate net cost is estimated at ⅝ cent per pound.
				Other	950	3,135	950	3,135	Program is designed to keep in production those copper mines which would go out of production as a result of increased costs and fixed ceiling prices. Contracts have been consumated for 23,737 short tons at an average subsidy of $132.07 per ton.
				Commitment to purchase		49,500		844	Contract covers commitment to purchase 225,000,000 pounds at a floor price of 22 cents. Probable ultimate net cost is estimated at $0.00375 per pound.
				----do		124,313		9,750	Contract covers commitment to purchase 487,500,000 pounds to be delivered after June 30, 1954, at a price of 25½ cents per pound. Probable ultimate net cost is estimated at 2 cents per pound.

				....do	3,139	4,391	106	145	Probable ultimate cost covers the estimated excess transportation and similar costs incurred in connection with diversion of copper from stockpile to industry.
				....do	1,286	1,286			Contract provides for purchase of copper at market prices. Consequently, no probable ultimate net cost.
				Cryolite:					
959	959		DMPA	Purchase and resale	3,562	3,562	959	959	Probable ultimate net cost is based on the difference between purchase price of $260 per short ton and resale at $190 per short ton for 13,700 short tons.
742	742		DMPA	....do	11,843	11,843	742	742	Probable ultimate net cost estimated at $742,000; this is an amount sufficient to cover the cost to the Government in the event of contract cancellation.
			DMPA	Dolomite: Other		20,000			It is expected that no purchases will be made under this contract. Consequently, it is estimated there will be no probable ultimate net cost.
				Fluorspar:					
64	64		Interior	Exploration, grants for, etc	29	64	29	64	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
5,683	3,168	2,515	DMPA	Program (DMPA-85-11—DPA-157): Commitment to purchase	9,750	9,750	1,200	1,200	Contract covers 150,000 tons of fluorspar at a floor price of $65 per ton. Probable ultimate net cost estimated as follows: (*a*) $5 per ton to cover the difference between floor price and current market price of $60 per ton for 150,000 tons; (*b*) $4.50 per ton to cover the possibility of price declines on 100,000 tons scheduled for delivery after June 30, 1954.
				....do		6,000		1,800	Estimated loss of $18 per ton for 100,000 tons based on $42 average resale during the contract with a guaranteed price of $60.
				....do	6,000	6,000	315	315	Probable ultimate net cost estimated at $4.50 per ton for 70,000 tons scheduled for production after June 30, 1954.

See footnotes at end of table, p. 53.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from—Continued

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
				Fluorspar—Continued					
1,139	----------	1,139	DMPA	Program (DMPA-85-11-DPA-157—Continued Purchase and resale	----------	429	----------	----------	Program covers the diversion of fluorspar from stockpile to industry. Resale proceeds expected to cover costs; therefore, no probable ultimate net cost.
•	•		•	• •		•		•	•
				Graphite:					
1	1	----------	Interior	Exploration, grants for, etc	----------	1	----------	1	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
20	20	----------	DMPA	Other	----------	5	----------	5	Nonrecoverable expenditure (technical investigation.)
2,034	1,987	47	DMPA	Purchase and resale	404	404	404	404	Program covers the reactivation of a Government-owned plant to be operated by a contractor on a fee basis. Probable ultimate net cost covers an estimated $404,000 reactivation cost. Operation contract has not been consummated.
•			•	• •		•		•	•
				Iron and steel:					
142	142	----------	Interior	Exploration, grants for, etc	142	142	142	142	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
50,785	----------	50,785	RFC	Direct loan	7,706	50,785	----------	----------	Interest income assumed to offset expenses and losses.
•			•	• •		•		•	•
				Lead:					
2,850	300	2,550	DMPA	Purchase and resale	7	2,750	10	289	The program contemplated purchase of 15,000,000 pounds at 19 cents per

									pound and resale at ceiling of 17 cents per pound. Probable ultimate net cost was estimated at 2 cents per pound for a total quantity. Because of increase in ceiling to 19 cents per pound, actual loss will be less than estimated.
2,267	1,214	1,053	DMPA	....do		10,533	10,533	1,214	1,214	The probable ultimate net cost is estimated on the basis of an estimated price decline of 25 cents of the difference between the pre-Korea price of $240 per ton and the proposed contract price of $340 per ton plus the duty of $21.25 per ton. Program covers 26,250 short tons.
----------	----------	----------	DMPA	Commitment to purchase		983	983	----------	----------	Under this contract the Government is committed to purchase up to 2,460 tons of lead and 700 tons of zinc at 15 cents and 15¼ cents per pound, respectively. Since production and deliveries are in the near term future, no provision is made for probable ultimate net cost.
11,400	----------	11,400	DMPA	Purchase and resale		----------	----------	----------	----------	No contracts consummated as of June 30, 1952. Program calls for purchase of 30,000 tons to be held for resale to industry in the event of shortages in calendar year 1952 or for resale to stockpile on or before Dec. 31, 1952.
3,664	3,664	----------	Interior	Lead-zinc: Explorations, grants for, etc.		911	3,664	911	3,664	The money advanced for exploration is treated as unrecoverable since the variables involved preclude any reliable estimate of recovery.
1,024	1,024	----------	Interior	Lead-zinc-copper: Explorations, grants for, etc.		15	1,024	15	1,024	Do.
•	•	•	•	•	•	•	•	•	•	•
208	208	----------	Interior	Manganese: Explorations, grants for, etc.		28	208	28	208	Do.
112,712	88,730	23,982	DMPA	Program (DMPA-110-11-DPA-182): Purchase and resale		55	108	26	51	Under this program, the Government will purchase 6,000,000 long-ton units of manganese ore at an estimated price of 86.6 cents per unit. Processing costs are estimated at $1.44 per unit. Resale is estimated at $1.22 per unit or a net loss of approximately $6,520,000 under the complete program. Estimated losses on purchases through June 30, 1952, amount to $51,000.

See footnotes at end of table, p. 53.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from—Continued

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
				Manganese—Continued					
				Program (DMPA-110-11-DPA-182)—Continued					
				Purchase and resale	97	213	38	83	Under this program the Government will purchase 6,000,000 long-ton units of manganese at an estimated price of $1.44 per unit. Processing costs are estimated at 56 cents per unit. Resale is estimated at $1.22 per unit or a net loss of $1,680,000 under the complete program. Estimated losses on purchases through June 30, 1952, amount to $83,000.
				do		965		965	Under this program the Government will buy 50,000 tons of manganese ore (25 percent manganese content) at a price of $19.30 per ton. Since the material will be held pending arrangements for upgrading, the whole amount is treated as probable ultimate net cost pending further developments.
				do		56,250		18,050	Program covers the purchase of 37,500,000 long-ton units at $1.50 per unit. Probable ultimate net cost is based on resale of 7,000,000 long-ton units scheduled for delivery before June 30, 1954, at $1.10 per long-ton unit and 30,500,000 long-ton units scheduled for delivery after June 30, 1954, at $1 per long-ton unit.
				do	18,216	18,216	5,757	5,757	Contract covers the purchase by the Government of 264,000 long tons of 46-percent manganese at $1.50 per long-ton unit. Probable ultimate net cost estimated as follows: (a)

									12,144,000 long-ton units at $0.40 based on the difference between contract price and current market of $1.10: (b) 9,226,000 long-ton units at $.0975 per unit to allow for price declines on deliveries after June 30, 1954.
----------	----------	----------	----------	Commitment to purchase	51, 908	51, 908	32, 908	32, 908	Program covers the Government's commitment to purchase 19,000,000 long-ton units at $2.30. Probable ultimate net cost estimated as follows: (a) $1.30 per long-ton unit for 19,000,000 long-ton units based on resale at $1 per long-ton unit; (b) transportation of 456,000 tons at $18 per ton.
----------	----------	----------	----------	Purchase and resale	223, 000	223, 000	----------	----------	Purchases are at current market and will be complete by October 1952. Consequently, no probable ultimate net cost.
----------	----------	----------	----------	----do	2, 857	2, 857	----------	----------	Contract provides for near term purchases at current market. Consequently, no probable ultimate net cost.
2, 250	----------	2, 250	DMPA	Commitment to purchase	----------	9, 360	----------	----------	Program covers a commitment to purchase 36,000,000 pounds of high-purity manganese at 26 cents per pound. It is anticipated that the option will not be exercised and that no probable ultimate net cost will be incurred.
42	----------	42	RFC	Direct loan	----------	42	----------	----------	Interest income assumed to offset expenses and losses.
101, 600	81, 600	20, 000	DMPA	Magnesium: Purchase and resale	----------	181, 560	----------	81, 600	Program involves production of 408,000,000 pounds at an average production cost estimated at 44½ cents per pound and resale at market price of 24½ cents per pound. Probable ultimate net cost to the Government is based on 20 cents per pound for the full quantity.
				Mercury:					
209	209	----------	Interior	Explorations, grants for, etc	----------	209	----------	209	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
----------	----------	----------	DMPA	Program (DMPA-76-11-DPA-148).	----------	----------	----------	----------	Program involves no financial commitment of the Government.
				Mica:					
106	106	----------	Interior	Explorations, grants for, etc	67	106	67	106	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.

See footnotes at end of table, p. 53.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from—Continued

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
33,255	29,755	3,500	DMPA	Mica—Continued Program (DMPA-62-11-DPA-131): Commitment to purchase.	20,625	20,625	13,392	13,392	Domestic program contemplates the purchase of 2,250,000 pounds of mica at a cost of $20,625,000 with resale at $7,233,000 or a probable ultimate net cost of $13,392,000.
5,000	5,000		DMPA	Mineral development: Program (DMPA-102-11-DPA-174).					No contracts consummated.
9,883	4,150	5,733	DMPA	Molybdenum: Commitment to purchase		146,250		4,150	Program provides a guaranteed price of $1.72 per pound on 85,000,000 pounds. Probable ultimate net cost is predicated on 25 percent of the difference between the pre-Korea price of 90 cents per pound and the guaranteed price of $1.72 for 20,000,000 pounds plus $50,000 for inspection and miscellaneous expenses.
25,195	23,672	1,523	DMPA	do	72,500	72,500	23,672	23,672	Contract covers the purchase of 50,000,000 pounds of molybdenum, at an estimated price of $1.45 per pound of which 46,875,000 pounds are scheduled for production after June 30, 1954. Probable ultimate net cost is estimated as follows: (a) 50,000,000 pounds, at $0.45 per pound, to cover the difference between contract price and current market; (b) 46,875,000 pounds, at $0.025 per pound, to cover the possibility of price declines applicable to deliveries after June 30, 1954.
675	675		DMPA	do					Contract not consummated.

56,246	42,037	14,209	DMPA	Nickel: Program (DMPA-80-11-DPA-152): Other	343	375	343	375	Probable ultimate net cost of consummated contract was estimated at an amount sufficient to cover exploration costs and other expenses incidental to the acquisition of additional reserves.
				Purchase or resale		93,000	−6,246	9,300	Probable ultimate net cost covers the estimated loss on operation of Government plant. Loss estimated at 6 cents per pound on 155,000,000 pounds.
				Other					Contract not consummated.
				Purchase and resale		62,865		11,637	Probable ultimate net cost was estimated as an amount sufficient to cover an advance of $6,000,000 plus losses on resale of 7 cents per pound on 75,000,000 pounds of nickel, 9/10 of 1 cent per pound on 1,500,000 pounds of cobalt, and 1 cent per pound on 37,500,000 pounds of copper.
				....do		18,693			The purchase prices under this program are less than current market. Resale is expected on the average to recover costs in full. No probable ultimate net cost.
53	53		Interior	Rare earths (includes monazite and thorium): Explorations, grants for, etc.	44	53	44	53	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
32	32		Interior	Rutile: Explorations, grants for, etc.		32		32	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
550	350	200	DMPA	Program (DMPA-87-21-DPA-159).					No consummated contracts.
50	50		Interior	Sulfur: Explorations, grants for, etc.		50		50	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of recovery.

See footnotes at end of table, p. 53.

Quarterly report on utilization of borrowing authority under sec. 304 (b), Defense Production Act, as amended—extracts from—Continued

[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		Basis for determination
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	
29	29	----------	Interior	Talc: Explorations, grants for, etc.	----------	29	----------	29	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
160	160	----------	Interior	Tin: Explorations, grants for, etc.	16	160	16	160	Do.
623	623	----------	DMPA	Tin and tungsten: Commitment to purchase.	----------	2,865	----------	623	Consummated contract covers a Government guaranty of a V-loan, at 95 percent and an advance. The full amount of the Government financial commitment is considered probable ultimate net cost because of the vulnerable strategic location of the mine.
5,000	----------	5,000	DMPA	Titanium: Purchase and resale	----------	5,000	----------	----------	Program covers the purchase by the Government of current production which is not absorbed by industry. Purchases and resales will be made at the market and no loss is anticipated.
15,000	15,000	----------	DMPA	Commitment to purchase	165,000	180,000	15,000	15,000	Under the contract an advance of $15,000,000 will be made to the contractor. Because of possible technological change, the full amount of this advance is considered as probable ultimate net cost.
14,700	14,700	----------	DMPA	---do---	135,000	135,000	14,700	14,700	Under the contract an advance of $14,700,000 will be made to the contractor. Because of possible technological change, the full amount of this advance is considered as probable ultimate net cost.
•	•	•	•	• •		•	•	•	•
1,440	1,440	----------	Interior	Tungsten: Explorations, grants for, etc.	378	1,440	378	1,440	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of possible recovery.
14,050	13,050	1,000	DMPA	Commitment to purchase (domestic).	637	988	44	68	Program covers commitment to purchase 3,000,000 short-ton units at $63 per unit. It is assumed that no loss

									will be incurred on 1,790,000 short-ton units expected to be produced prior to June 30, 1954, and that as a result of price declines the loss on 1,210,000 units expected to be produced after June 30, 1954, will amount to approximately $10.78 per unit or a total estimated loss of $13,050,000 for the full program. Estimated losses on purchases through June 30, 1952, are $68,000.
36,618	23,368	13,250	DMPA	Program (foreign) (DMPA–90–21–DPA–162): Purchase and resale	12,806	45,589	1,901	6,272	Program contemplates the purchase from foreign sources of 1,060,000 short-ton units at a price of $65 per unit, plus $10 per unit for duty, transportation, etc. Resale is estimated at $65 with the loss of $10 per unit to be absorbed in borrowing authority under the complete spot purchase program. Estimated losses on purchases through June 30, 1952, are $6,272,000.
				do	78,293	78,293	12,187	12,187	Contract covers 975,000 short-ton units. Probable ultimate net cost is estimated as follows: (a) absorption of duty on 975,000 short-ton units at approximately $8 per unit; (b) $9 per short-ton unit for price declines applicable to 487,500 short-ton units.
				do	8,385	8,385	581	581	Contract covers 129,000 short-ton units. Probable ultimate net cost is estimated at $9 per short-ton unit for 64,500 short-ton units.
110		110	RFC	Direct loan	−75	110			Interest income assumed to offset expenses and losses.
521	521		Interior	Uranium: Explorations, grants for, etc.	105	521	105	521	The money advanced for exploration is treated as unrecoverable, since the variables involved preclude any reliable estimate of recovery.
				Zinc:					
338		338	Export-Import Bank.	Direct loan	338	338			Interest income assumed to offset expenses and losses.
20	20		DMPA	Commitment to purchase		5,715		20	Consummated contract covers a commitment to purchase 18,436 tons at a price of 15½ cents per pound. Probable ultimate net cost is estimated at ½ cent per pound for 2,000 tons based on an estimated price decline applicable to deliveries after June 30, 1954.

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[Thousands of dollars]

Borrowing authority certified to date			Reporting agency	Program	Gross value of actual transactions consummated		Probable ultimate net cost to United States on actual transactions consummated [1]		
Total amount certified, June 30, 1952	Probable ultimate net cost [1]	Working capital required			Second quarter of calendar year 1952	Cumulative to June 30, 1952	Second quarter of calendar year 1952	Cumulative to June 30, 1952	Basis for determination
				Zinc—Continued					
80		80	DMPA	do		2,520			Consummated contract covers a commitment to purchase 7,200 tons of zinc at 17½ cents per pound. No loss is anticipated since the production will be completed before June 30, 1954, and it is assumed there will be no price decline below 17½ cents before that time.
178	178		DMPA	do		5,775		178	Consummated contract covers the commitment to purchase 16,500 tons of zinc of which approximately 7,900 tons will be produced after June 30, 1954. Contract price is $350 per ton. It is assumed that there will be no probable ultimate net cost on production before June 30, 1954; on production thereafter, the unit probable ultimate net cost is estimated at ¼ the difference between the pre-Korea price of $260 per ton and the contract price of $350 per ton.
			DMPA	do		3,500			Contract covers a commitment to purchase 10,000 tons of zinc at 17.5 cents per pound. No probable ultimate net cost was provided at the time of contract consummation.
912	684	228	DMPA	do		4,788		684	Program covers commitment to purchase 13,680 short tons at 17½ cents per pound. Probable ultimate net cost is based on estimated declines in market price estimated to average 2½ cents per pound.
11	11		DMPA	do	930	930	11	11	Consummated contract covers a commitment to purchase 3,000 tons of slab zinc at 15½ cents per pound. Probable ultimate net cost is estimated at $12.50 per ton for 900 tons, to be delivered after June 30, 1954.

45		45	DMPA	do		875			Consummated contract covers the commitment to purchase 2,500 tons at 17½ cents per pound. No loss is anticipated since the production will be completed before June 30, 1954, and it is assumed there will be no price decline below 17½ cents prior to that time.
4,000	4,000		DMPA	Other	196	196	196	196	Program is designed to keep in production those zinc mines which would go out of production as a result of increased costs and fixed ceiling prices. Contracts have been made for 11,629 tons, at an average subsidy of $16.86 per ton, of 60 percent zinc concentrates.
400		400	DMPA	do					Contract not consummated.
1,890	1,890		DMPA	do					Contract has not been consummated and is being canceled.
120	120		DMPA	do		6,600		120	Consummated contract covers a commitment to purchase 20,000 tons at 16½ cents per pound. Probable ultimate net cost is estimated at ¾ cent per pound on the 16,000,000 pounds covered by the commitment subsequent to June 30, 1954.
509	509		DMPA	do					Contract not consummated.
			DMPA	do		1,750			Consummated contract covers commitment to purchase 5,000 short tons at a price of 17½ cents per pound. Market price is not expected to decline below this price during the term of the contract; consequently, no probable ultimate net cost.
4,275	337	3,938	DMPA	Purchase and resale	1,031	5,967			Program covers the diversion of zinc from stockpile delivery to industry delivery. Resale price will be in excess of cost and no probable ultimate net cost is anticipated at this time.
1,131		1,131	RFC	Direct loan	291	1,131			Interest income assumed to offset expenses and losses.

[1] The "Probable ultimate net cost" as related to the "Borrowing authority certified to date" is the total estimated loss for the entire program. The "Probable ultimate net cost" as related to "Actual transactions consummated" is that portion of the total estimated cost incurred to date.

COMMITTEE NOTE.—Items deleted from this report include: aircraft and aircraft parts; aluminum sheet; American-Egyptian cotton; American-Egyptian cottonseed; atomic energy; building materials; castor beans, 1951–52; chemicals; clothing and equipage; electrical, electronic, and X-ray products; food processing and manufacturing; iron and steel scrap; kenaf seed and fiber, 1951–52; linseed oil; machinery and components; machine tool; munitions; nonferrous scrap; petroleum and petroleum products; research and development on missiles, physics, and mechanisms; rubber; sisal-processing plant; storage and warehousing; transportation; tung oil; weapons.

DEFENSE PRODUCTION ADMINISTRATION, OFFICE OF CONSTRUCTION AND RESOURCES EXPANSION

Report on status of borrowing authority allocated by Defense Production Administration, sec. 304, Defense Production Act, 1950, as amended, as of Aug. 31, 1952

[In thousands]

Total borrowing authority authorized by statute		$2,100,000
Less:		
Amount for agriculture programs	$65,000	
Amount for working-capital loans (RFC)	50,000	
Amount for contingencies	185,000	
		300,000
Total available for allocation by Defense Production Administration		1,800,000
Less:		

Allocations to	DMPA	RFC, sec. 302	RFC, sec. 303	Export-Import Bank	Interior	Total
Certified portion	$1,090,122	$302,497	$43,000	$539	$10,847	$1,447,005
Uncertified portion	9,878	54,503	0	64,461	5,153	133,995
Total	1,100,000	357,000	43,000	65,000	16,000	1,581,000

Total allocations	1,581,000
Balance unallocated	219,000
Add: Uncertified portion of allocated funds	133,995
Cumulative total uncommitted by certification	352,995

Schedule of borrowing authority allocated

[In thousands]

Program by agency	Total	Sec. 303	Sec. 302		Export-Import Bank
		DMPA	Interior	RFC	
CERTIFICATION BY DFA					
Interior:					
Defense solid fuels	$3,039	0	0	$3,039	0
Petroleum Administration	8,864	0	0	8,864	0
Subtotal	11,903	0	0	11,903	0
Defense Transport Administration:					
Motor carriers	3,029	0	0	3,029	0
Railroads	2,250	0	0	2,250	0
Refrigerated warehouses	1,250	0	0	1,250	0
Subtotal	6,529	0	0	6,529	0
Commerce—NPA:					
Aluminum sheets	5,040	$5,040	0	0	0
Copper, bronze, brass scrap	572	572	0	0	0
Machine tools	150,000	150,000	0	0	0
Rubber	200,000	200,000	0	0	0
General Industrial Equipment Division	1,390	0	0	1,390	0
General Components Division	1,059	0	0	1,059	0
Metalworking Equipment Division	3,490	0	0	3,490	0
Motor Vehicle Division	3,155	0	0	3,155	0
Aircraft Division	25,453	0	0	25,453	0
Communication Equipment Division	1,425	0	0	1,425	0
Electronics Division	21,299	0	0	21,299	0
Leather and Leather Products Division	15	0	0	15	0
Ordnance and Shipbuilding Division	1,930	0	0	1,930	0
Scientific and Technical Equipment Division	5,059	0	0	5,059	0
Service Equipment Division	35	0	0	35	0
Textile Division	1,528	0	0	1,326	$202
Copper Division	66	0	0	66	0
Iron and Steel Division	57,743	0	0	57,743	0
Miscellaneous Metals and Minerals Division	1,046	0	0	1,046	0
Chemical Division	1,845	0	0	1,845	0

Schedule of borrowing authority allocated—Continued

[In thousands]

Program by agency	Total	Sec. 303	Sec. 302		Export-Import Bank
		DMPA	Interior	RFC	
CERTIFICATION BY DPA—continued					
Commerce—NPA—Continued					
Rubber Division	$825	0	0	$825	0
Building Materials Division	1,558	0	0	1,558	0
Other	52	0	0	52	0
Subtotal	484,585	$355,612	0	128,771	$202
Defense Materials Procurement Agency:					
Aluminum	65,482	65,482	0	0	0
Asbestos chrysotile	3,445	3,445	0	0	0
Beryllium	7,752	7,752	0	0	0
Beryllium and mica	125	0	0	125	0
Chrome	41,600	41,600	0	0	0
Cobalt	10,323	10,323	0	0	0
Columbite-tantalite	60,250	60,250	0	0	0
Copper	141,577	84,392	0	57,185	0
Cryolite	742	742	0	0	0
Fluorspar	6,822	6,822	0	0	0
Graphite	2,054	2,054	0	0	0
Kryolith	959	959	0	0	0
Lead	16,517	16,517	0	0	0
Magnesium	101,600	101,600	0	0	0
Manganese (electrolytic)	2,250	2,250	0	0	0
Manganese (metallurgical)	112,712	112,712	0	0	0
Mica	33,255	33,255	0	0	0
Minerals and metals exploration	1,100	0	0	1,100	0
Minerals development program	5,000	5,000	0	0	0
Molybdenum	35,753	35,753	0	0	0
Nickel	43,061	43,061	0	0	0
Rutile	550	550	0	0	0
Tin	43,000	(Sec. 303)	0	43,000	0
Tin and tungsten	1,433	1,433	0	0	0
Titanium	34,700	34,700	0	0	0
Tungsten	51,418	51,418	0	0	0
Zinc	12,920	12,440	0	480	0
Subtotal	836,400	734,510	0	101,890	0
CERTIFICATIONS BY DMEA					
Copper	94,000	0	0	94,000	0
Feldspar, beryl, and mica	470	0	0	470	0
Graphite	250	0	0	250	0
Iron ore	60	0	0	60	0
Lime rock	92	0	0	92	0
Machine tools	535	0	0	535	0
Manganese	42	0	0	42	0
Tungsten	462	0	0	462	0
Zinc-lead	830	0	0	493	337
Subtotal	96,741	0	0	96,404	337
CERTIFICATIONS BY INTERIOR					
Defense Minerals Exploration Administration	10,847	0	10,847	0	0
Subtotal	10,847	0	10,847	0	0
Grand total certified	1,447,005	1,090,122	$10,847	345,497	539
Uncertified balance of allocation	133,995	9,878	5,153	54,503	64,461
Total allocations	1,581,000	1,000,000	16,000	400,000	65,000

Status of borrowing authority advanced to RFC and Export-Import Bank for financing loans under sec. 302 of the Defense Production Act, as of Aug. 31, 1952

[In thousands]

Total advanced to RFC	$357,000
Total advanced to Export-Import Bank	65,000
Total	422,000

Status of borrowing authority advanced to RFC and Export-Import Bank for financing loans under sec. 302 of the Defense Production Act, as of Aug. 31, 1952—Con.

[In thousands]

Less loans certified by—			
By DPA—approved by RFC	$187,297		
By DPA—in process by RFC	18,796		
By DMPA—approved by RFC	95,288		
By DMPA—in process by RFC	1,116		
		$302,497	
Approved by Export-Import Bank		539	
			$303,036
Balance available			118,964

Schedule of loans certified

[In thousands]

Program by agency	Number	Approved	Number	Pending	Number	Total
Interior:						
Defense Solid Fuels	2	$2,626	1	$413	3	$3,039
Petroleum Administration	8	4,799	2	4,065	10	8,864
Subtotal	10	7,425	3	4,478	13	11,903
Defense Transport Administration:						
Motor carriers	9	3,014	1	15	10	3,029
Railroad	1	2,250	0	0	1	2,250
Refrigerated warehouses	1	1,250	0	0	1	1,250
Subtotal	11	6,514	1	15	12	6,529
Commerce:						
General Industrial Equipment Division	4	1,390	0	0	4	1,390
General Components Division	2	834	1	225	3	1,059
Metalworking Equipment Division	7	2,247	2	1,243	9	3,490
Motor Vehicle Division	6	3,155	0	0	6	3,155
Aircraft Division	36	22,952	1	2,501	37	25,453
Communication Equipment Division	4	1,425	0	0	4	1,425
Electronics Division	22	16,048	2	5,251	24	21,299
Leather and Leather Products Division	1	15	0	0	1	15
Motion Picture Division	0	0	0	0	0	0
Ordnance and Shipbuilding Division	6	1,930	0	0	6	1,930
Scientific and Technical Equipment Division	4	4,976	1	83	5	5,059
Service Equipment Division	1	35	0	0	1	35
Textile Division [1]	4	1,528	0	0	4	1,528
Copper Division	2	66	0	0	2	66
Iron and Steel Division	20	52,743	1	5,000	21	57,743
Miscellaneous Metals and Minerals Division	2	1,046	0	0	2	1,046
Chemical Division	6	1,845	0	0	6	1,845
Rubber Division	2	825	0	0	2	825
Building Materials Division	2	1,558	0	0	2	1,558
Other	1	52	0	0	1	52
Subtotal	132	114,670	8	14,303	140	128,973
Defense Materials Procurement Agency:						
Copper	1	57,185	0	0	1	57,185
Minerals and metals exploration	2	1,100	0	0	2	1,100
Zinc	2	480	0	0	2	480
Beryllium and mica	1	125	0	0	1	125
Subtotal	6	58,890	0	0	6	58,890
Total certified—DPA	159	187,499	12	18,796	171	206,295
Certified by DMPA under delegation No. 2:						
Machine tools	3	535	0	0	3	535
Tungsten	4	206	1	256	5	462
Manganese	1	42	0	0	1	42
Copper	1	94,000	0	0	1	94,000
Zinc-lead [2]	6	705	1	125	7	830
Feldspar-beryl and mica	1	45	1	425	2	470
Graphite	0	0	1	250	1	250
Lime rock	1	92	0	0	1	92
Iron ore	0	0	1	60	1	60
Subtotal	17	95,625	5	1,116	22	96,741
Grand total	176	283,124	19	19,912	195	303,036

[1] Includes loan in amount of $202,000 certified to the Export-Import Bank.
[2] Includes loan in amount of $337,500 certified to the Export-Import Bank.

ADDRESS OF HOWARD I. YOUNG, DEPUTY ADMINISTRATOR DEFENSE MATERIALS PROCUREMENT AGENCY BEFORE THE AMERICAN MINING CONGRESS, DENVER, COLORADO, SEPTEMBER 22, 1952

[Extracts from]

Members of the American Mining Congress, distinguished guests, ladies and gentlemen:

* * * * * * *

Now let me give you a brief summary of some of the individual programs that have been worked out to date and what they mean in terms of actual results.

Beryllium

The Government-industry program on beryllium calls for a 70 percent expansion in production by 1955 through purchase and resale contracts, loans, geological investigation, process development in the field of ore dressing, various hydro-metallurgical studies and related investigations. Studies looking toward beryl concentration on a commercial scale are proceeding apace.

Copper

The copper program calls for an expansion of 25 percent by 1955. Production is being increased at existing plants; high-cost mines are being kept in operation through payment of over-ceiling prices; plants at some mines have been expanded; new properties are being brought into production and old properties are being reopened. The country's position with respect to copper should be greatly improved for years to come as a result of this Government-industry program.

Fluorspar

The fluorspar program calls for a 50 percent increase in production by 1955 through purchase and resale contracts, commitments-to-purchase contracts and tax-amortization certificates.

Iron ore

Production of iron ore will be up approximately 40 percent by 1955, largely through the issuance of tax-amortization certificates. The Government also is assisting in the building of access roads and in the procurement of machinery and materials.

Manganese

A 30-percent increase in the Nation's supply of manganese by 1955 is expected to result from fuller utilization of domestic ores that are readily amenable to concentration by conventional methods, the establishment of Government purchase depots, purchase and resale contracts and increased imports. Moreover, definite steps have been taken to perfect methods for the extraction of manganese from slag and to develop processes for obtaining manganese from low-grade domestic ores.

Mica

Foreign purchase contracts and the establishment of domestic buying stations are expected to increase the country's supplies of block and film mica by 50 percent in 1955.

Molybdenum

An expansion of 130 percent in United States production of molybdenum by 1955 is assured through commitment-to-purchase contracts and tax-amortization certificates. A part of the expansion will come from a single large deposit of low-grade ores.

Nickel

The supply of nickel will be increased by approximately 35 percent by 1955 through purchase contracts, loans, tax-amortization certificates and reactivation of the Government-owned Nicaro plant in Cuba. Present plans call for still further expansion after 1955.

Tungsten

The tungsten program calls for an expansion of 190 percent by 1955 through the Government's domestic purchase program and purchases from abroad.

Zinc

Purchase contracts and tax-amortization certificates are expected to result in a 15 percent increase in production of zinc by 1955. Several additional sources of supply are known and still further expansion would be possible.

Any review of developments in the field of metals and minerals during the past year would be incomplete without special mention of titanium. While there are many problems yet to be worked out in the fabrication as well as the production of this metal, it is generally conceded that its use in the manufacture of both military equipment and civilian goods is certain to expand very greatly during the next several years. The situation is changing so rapidly that I would hesitate to predict just what our supply of this remarkable metal will be at any given time in the future, but production already scheduled for 1955 is several times the present plant capacity. DMPA is assisting substantially in this expansion for defense purposes.

To date, DMPA has developed programs to expand the production of 17 different metals and 22 nonmetallic minerals. Four of the metals programs and nine of the programs for nonmetals already have been completed—that is, sufficient production is assured to meet all estimated requirements. In addition, 11 of the metals programs and 8 of the nonmetals programs are between 70 and 100 percent complete, leaving only 2 metals and 5 nonmetals still below 70 percent complete. Altogether, we are concerned with approximately 75 different materials.

DMPA has received some 1,882 applications for Government assistance. Of this number, 430 have been withdrawn and 671 have been denied.

A total of 469 applications have been approved and put into effect. The remainder are in various stages of negotiation. The 469 approved projects that I refer to here, it should be noted, are those which involve some form of assistance other than aid in obtaining machinery and equipment under the controlled-materials program. In the latter category, DMPA has approved some 500 projects up to the present time.

The expansion projects approved thus far involve an industry outlay approaching a billion dollars, and there are projects under consideration right now on which industry will spend several hundred millions more.

Now what does this all mean in terms of actual production increases. We have tabulated the dollar value of the materials that will be coming out of the ground in 1955 as a result of these Government-industry programs, and we find that it will be in the neighborhood of $1,100 million. Understand that I am referring here only to new production involving some form of Government assistance—purchase contracts, advances against production, tax-amortization certificates, maintenance-of-production contracts, aid in building access roads, and so on. And many of the larger operations, such as copper, will not even be fully under way in 1955.

Well, there you have some glimpses of what DMPA has been up to during the past year. I am sure that you appreciate that what I have presented here is far from the whole story of DMPA. Behind every program and every contract there are weeks, in many cases months, of staff work, field inspections, and negotiations.

We work always in a world of changing requirements, shifting prices, unsettled situations abroad and many other uncertainties. The decisions we have to make from day to day are seldom easy. Through our industry advisory committee meetings and in many other ways we bring to bear on every question the best judgment that is available to us before we decide on a course of action.

Our decisions are not always popular with all segments of the press or all segments of industry, but on the whole I feel that the work we are doing has been well received.

Perhaps the sharpest criticism that has come our way during the past year was in connection with our announcement that we had been authorized to purchase 30,000 tons of lead during a period of easing demand and falling prices. Our purpose was not to take up the slack in the market but simply to be prepared to meet requirements later in the event the supply situation tightened up again. To date we have bought 26,105 tons. We are holding it for the time being for resale to industry, if the need arises. Any of the reserve that is not needed during the next few months will be turned over to the national stockpile. The lead program, incidentally, calls for an expansion of only 2 percent by 1955.

As you know, the Government regularly buys materials required for the national stockpile as they become available and are not needed by essential industries. Only last fall, lead was in such short supply that there was not enough available in the latter part of the year to maintain the production of high-test gasoline at required levels, and it was necessary to take lead out of the stockpile.

We didn't want that to happen again, so when the supply situation eased up earlier this year, it seemed the better part of wisdom to lay our hands on a limited amount of lead while the getting was good. The price was advantageous to the Government, and we knew that sooner or later we were going to need the lead. Instead of turning it over to the stockpile immediately, however, we felt that it should be held in reserve to meet any industrial needs that might develop during the remainder of the year.

I thought it was good business at the time, and I still think so. But for the benefit of anyone who may have the notion that this is going to be a regular activity of DMPA, let me say that there are no plans at present and that there have been no plans to set up temporary reserves of other materials.

And this brings me to a question that is asked of us more often, perhaps, than any other. On what basis do we approve or disapprove Government assistance? It is a good question. But the answer to it is both simple and complex.

The simple answer is that we study each situation on its merits, decide upon a course of action that promises to get the best results at the least cost to all concerned and then go ahead.

But I don't need to remind you people in the metals and minerals business that this is easier said than done. As you well know, you seldom encounter two situations that are entirely alike. Copper is copper, but the production of copper presents particular problems that vary almost with every mining operation. What is sauce for the goose is not necessarily sauce for the gander in this business.

Remember, too, that DMPA, despite the very great authority that has been vested in it under the Defense Production Act is not entirely a free agent.

For example, all DMPA programs must be fitted into the operations of and have the concurrence of the Defense Production Administration, which sets the over-all goals for strategic materials and which, of course, has its own policies, programs, and problems.

Our operations also have to be kept in mesh with those of the General Services Administration's Emergency Procurement Service, the agency which does the buying for the national stockpile. Both DMPA and EPS, of course, work very closely with the Munitions Board, which sets the specifications and requirements for the stockpile. And all of us take orders from the Bureau of the Budget.

Then there are all the special problems that have to be worked out in connection with our foreign expansion program. To date, the greatest emphasis has been on developing our domestic resources, but there has been some very important activity in the foreign field, too. The groundwork for our foreign development program was done by the Strategic Materials Division of the Economic Cooperation Administration, and after DMPA was set up it was our good fortune to have that Division transferred to our organization.

No one who has a part in the management of an agency dealing with problems as critical and as varied as those of the Defense Materials Procurement Agency leads the simple life. I am happy to be able to say that we have an efficient and industrious staff, a great many of whom are intimately acquainted with the mining industry. I don't know anyone on the staff who has not been willing to lay personal interests aside when it was a question of working into the night to get a job done. And we open up bright and early in the morning, too, I can tell you.

Whether it is help in obtaining a tax-amortization certificate that a company needs in order to expand its production, whether it is a loan, a guaranteed purchase contract or some other form of assistance, DMPA is there to help. As you know, we have contracts with a number of large firms, but we also have assisted in boosting the production of the smaller operators wherever there has been an opportunity to get more materials for national defense that way.

Among other things, we have established a number of purchase depots in various parts of the country where small producers of several strategic materials can dispose of their output. In addition, we have launched a separate program for manganese which makes it

possible for producers of acceptable ores or concentrates to put their material down in carload lots at any rail shipping point.

Recently, we announced plans for the establishment of an asbestos-processing mill in Arizona to try to stimulate greater production of that much-needed material wherever it is found in the area. The small producer, in short, is very much a part of our plans and programs.

Just one more point, and I'll let you get back to work. I suppose that many of you have been wondering about the future of DMPA. Frankly, I don't know how much further the DMPA program will have to be extended before we can be sure that all the Nation's needs for critical materials will be met. I don't know, because I have no way of knowing what the future world situation will be.

STRATEGIC MINERALS CONFERENCE, SEPTEMBER 24—OPENING REMARKS [1]

By S. H. Williston, chairman, strategic minerals committee, American Mining Congress (vice president, Cordero Mining Co., San Francisco)

What is the Government policy regarding the production of strategic metals within the United States? We cannot believe in their entirety the flowery words which come out of Washington. The only way we can judge what that policy is is by examining what Washington does, not what Washington says.

A year ago we produced a quarter of our requirements in antimony. Now we import all.

In 1943 we were self-sufficient, both for ourselves and our allies, in quicksilver. Now we import 80 percent.

Two years ago we were importing 91 percent of our manganese. Mr. James Boyd, of the old DMA, stated that, with a price corresponding to a 50-cents-a-ton increase in steel, we could be self-sufficient in manganese. We are now importing 92 percent of our requirements.

In 1943 we produced 12,000 (S. T. 60 percent WO_3) tons of tungsten concentrates. Now we produce 6,000.

Two years ago we imported 100 percent of our chrome. Now we are only importing 99 percent, and possibly we may reduce that under the present program to 95 percent.

Two years ago secret Government instructions were given to make no increases in production unless there were world-wide shortages. No significant increases have been made except where there were world-wide shortages. We may presume, then, that our Washington Government does not expect a war and never has.

The experiences of the last year and a half have shown conclusively that when we want and urgently need metals from abroad we do not get them and when we do not need them they come into the American market to depress price and close down domestic plants.

There is absolutely no reason why we should be surprised.

In 1935 the Government declared its policy of increasing the raw-material supply from abroad and consequently decreasing the need for minerals from domestic sources. Metal tariffs have directly, or

[1] Presented at the 1952 Metal and Nonmetallic Mineral Mining Convention and Exposition, the American Mining Congress, Denver, Colo., September 22–25.

indirectly by depreciation of the dollar, been decreased by 80 percent or more.

Ceiling prices have been placed on domestic production; none on foreign production. Materials for the stockpile have been obtained abroad, and domestic producers have been refused the opportunity to supply metal at the same price.

Domestic mines are taxed at least 10 percent of gross and 65 percent of net; foreign mines, almost always less.

The Navy builds its armor plants in Turkey; the Air Force builds its jet-engine plants in Africa; the steel industry, half in Africa, half in India. Our Defense Department doesn't know this, but actually those plants could just as well be physically in those locations as to be wholly reliant upon them for their raw materials.

The same nonmining pseudo economists who have developed this policy over the last 17 years reissued that policy under the guise of the Paley report. I am very sorry that Mr. Paley, Mr. Brown, and Mr. Bunker permitted themselves to be hoodwinked by this same group of "Washington miners."

The domestic mining industry, strategic or critical, cannot compete in a free world market when their labor and operating costs are controlled by protective tariffs and politics, and their product has no price protection. So long as those Government policies continue, underground metal mining within the United States, with few exceptions, is faced with an unhappy and unhealthy future, if it has any future at all.

Lead prices, or possibly even zinc prices, might be supported artificially by stockpile buying in an election year to save votes, but there is not enough political importance in the whole strategic mining industry for the Government to keep it alive, even though it means the safety of the country.

I would suggest, then, that those of you who were interested in mining because, unfortunately, you like mining, permit yourselves to be exported to Canada, to Mexico, to South America, or wherever else there is some possibility of success, continued or otherwise as the Government wishes, but I warn you that the State Department has made most of these places too "hot" to operate in.

STRATEGIC MINERALS CONFERENCE—ANTIMONY [1]

By James P. Bradley, Vice President, Bradley Mining Co., San Francisco, Calif.

SUMMARY

Domestic mine production negligible; at the lowest rate in 20 years.

United States almost completely dependent on imports; unfavorable outlook for adequate foreign supplies.

World mine production below world demand; supplies coming mainly from declining inventories.

National stockpile dangerously inadequate; only 6 months' emergency supply.

[1] Presented at the 1952 Metal and Nonmetallic Mineral Mining Convention and Exposition, the American Mining Congress, Denver, Colo., September 22-25.

UNITED STATES MINE PRODUCTION

There is practically no domestic mine output at present, and production is at the lowest rate in the past 20 years.

Due to the depressed antimony market caused by heavy liquidation of foreign antimony inventories, the major domestic producer (Yellow Pine Mine & Smelter, Stibnite, Idaho) discontinued operations recently. The mine was shut down on June 20 and the smelter shut down in late August. This property has a productive capacity of about 4,000 tons per year, equivalent to well over 90 percent of domestic mine output, 20 percent of peacetime demand, and 10 percent of wartime requirements. Due to the isolated situation of Stibnite, the severe winter conditions, and the difficulties in replacing the trained crew (normal operating force of 325 reduced to 20), there will be a long delay before production could be resumed. The Yellow Pine mine shut-down also cuts off an important domestic supply of tungsten, which had been recovered as a byproduct of the antimony ore.

UNITED STATES DEPENDENCE ON IMPORTS

Our country has always had to rely on imports for the greater part of its new antimony supplies, and in recent years imports have supplied about 80 percent of domestic requirements. However, since the closing of the Yellow Pine mine, we are now practically 100 percent dependent on foreign sources.

With China out of the picture, the main foreign sources for the United States and the rest of the free world are Bolivia, Mexico, and the Union of South Africa. Production in these three countries has been sharply curtailed in 1952 and the outlook for adequate future supplies from these sources is extremely doubtful.

In Bolivia, the activities of the new revolutionary Government have caused uncertainties over future production as well as concern over the availability of its strategic metals to the United States. On September 3 it was announced that the Bolivian Government would nationalize the mining industry within 30 days.

Due to the gradual exhaustion of the better grade deposits, Mexican antimony production has been declining in recent years and a steady decline in future production can be anticipated.

In the Union of South Africa, one mine (Consolidated Murchison) furnished about 25 percent of the free world's supply of antimony in 1951. The long-term outlook is uncertain, however, as the company reported ore reserves at about 2 years' life at the end of 1951. A further uncertainty is the worsening political and racial crisis in South Africa.

WORLD SUPPLY-DEMAND SITUATION

Because of the greatly expanded production in South Africa, world production exceeded demand in 1951, resulting in the build-up of inventories by late 1951, followed by inventory liquidations and the sharp curtailment of world mine production in 1952.

At the present time, free world mine production of antimony is well below free world demand, with supplies coming mainly from declining inventories both here and abroad. Increased mine production will probably be needed by the coming winter and it can then be expected

that a serious world shortage will develop, due to the delays and difficulties in reactivation of closed mining properties (particularly in the United States and Bolivia). Furthermore, it is not likely that antimony mining can be resumed on a large scale in Bolivia while the present regime is in power.

NATIONAL STRATEGIC STOCKPILE

Although the national stockpile contains about 20,000 tons, or only 6 months' emergency supply (per industry estimates), it has been announced that the stockpile objective on antimony has been completely fulfilled.

The National Security Resources Board Report of March 1951, recommended that at least a year's emergency supply (40,000 tons) be stockpiled. However, considering the recent troubles in Bolivia and South Africa and the uncertain outlook for domestic mine production, it would seem safer to have several years' emergency supply in the stockpile.

The Members of Congress from Idaho (Senators Dworshak and Welker and Representatives Budge and Wood) have recognized the seriousness of the antimony situation and on August 11 wired President Truman, urging that the antimony stockpile objective be enlarged to a more realistic total and that it would be in the national interest to have the Yellow Pine smelter at Stibnite, Idaho, maintain a continuity of operations by treating foreign antimony ores for Government account and delivering finished product to the Government stockpile.

STRATEGIC MINERALS CONFERENCE—CHROMITE [1]

By F. W. Libbey, Director, State Department of Geology and Mineral Industries' Portland, Oreg.

Domestic production of chromite at the start of the Korean war was practically nil (total of 404 tons in 1950, all from California). The current rate of production (a variable that may change from month to month) is estimated to be about 25,000 tons per year, all from California and Oregon on about a 50–50 basis. This production rate is about 2 percent of our present national consumption of chrome ore (about 1,200,000 tons) and about 4 percent of our requirements for metallurgical grade chrome (about 600,000 tons). When the Montana project of the American Chrome Co. gets into production, scheduled for 1953 according to the Government contract, the company will produce 900,000 tons of concentrates over an 8-year period. If the emergency is great enough, these concentrates, estimated to contain about 40 percent Cr_2O_3 and 1½ to 1 chrome-iron ratio, could be used in the metallurgical industry without upgrading, so I am informed. However, it appears that the steel industry would balk at using ferrochrome made from this grade of concentrates if there is any way of obtaining standard grade of ferrochrome. It is obvious that more tons of ferrochrome from the low-grade concentrates would be required to meet our needs than standard ferrochrome from high-grade ore.

[1] Presented at the 1952 Metal and Nonmetallic Mineral Mining Convention and Exposition, The American Mining Congress, Denver, Colo., September 22–25.

In 1954, if we produce 112,000 tons of Montana chrome and 50,000 tons of Oregon and California chrome, the domestic production rate would be about 13.5 percent of domestic consumption of total chrome. This estimate makes no allowance for possible production from Kenai Peninsula, Alaska. A similar estimate may not be made for 1955 since the Government program for buying ore at Grants Pass, Oreg., is now scheduled to end June 30, 1955.

The chromite buying program at Grants Pass is gaining momentum much more slowly than had been hoped for, partly because of a late spring due to heavy snowfall last winter and partly because of the many natural difficulties in developing and getting out ore in a mountainous country. Access road help is sorely needed. I do not need to point out that chrome-ore deposits in Oregon and California are generally undeveloped so that mining is on a hand-to-mouth basis and there are difficulties in planning ahead both because of lack of knowledge of available ore and because of the time limitations in the Government program. There is a shortage of experienced chrome miners. Boom conditions are developing and some of the people who are prospecting or taking out ore have little real knowledge of mining and milling. Ten mills have been built or are being built in Oregon, six of which are producing concentrates. Three mills are shipping concentrates from California. Two small mills at John Day, Oreg., are shipping concentrates 390 miles to the Grants Pass depot by a commercial truck line at a cost of $20 per ton.

Since conditions governing building up of production contain many uncertainties, it is impossible to predict when maximum production may be obtained and how much it may amount to. It seems to me fairly well assured that more metallurgical grade chrome will be produced than was considered probable by Government agencies when the program was set up, and, in attaining this production, more chromite ore including low-grade will be found than is mined. It has been estimated that the ore shipped to the Grants Pass depot averages about 47.25 percent Cr_2O_3 and 2.7 to 1 chrome-iron ratio.

Probably an effort will be made next year to obtain an extension of the Government chrome buying program at Grants Pass together with a liberalization of ore specifications based on the contract with American Chrome Co. If an extension is granted so that miners may make some long-range plans, production will continue to increase. If an extension is not granted, production of Oregon and California ore may begin to fall off in 1954.

THE DEVELOPMENT OF DOMESTIC SOURCES OF MANGANESE [1]

By P. R. Bradley, Jr., President, Pacific Mining Co., San Francisco, Calif.

In the United States of America, manganese is one of the horseshoe-nail materials. It is an essential—a chemical essential to steelmaking—required however in only relatively small amount. The long horseshoe-nail legend begins with the loss of an insignificant nail and ends with the loss of a kingdom. The sequence in manganese is shorter. Lose manganese, lose steel, lose the country.

[1] Presented at the 1952 Metal and Nonmetallic Mineral Mining Convention and Exposition, The American Mining Congress, Denver, Colo., September 22-25.

This is not unrecognized by Washington officials. Long before 1941 they had made competent appraisals of manganese needs and domestic manganese resources. Special encouragement was given to domestic producers even in World War I. More was given in World War II. But the encouragement program to end all programs (any extra significance of this ordinary expression is only accidental) was launched following the outbreak of the Korean war.

The results?

Today we produce a smaller proportion of our needs than before the program was launched.

Over 90 percent of our manganese is bought abroad. To overadvertise the situation may even treasonably comfort the enemy. From the short-term standpoint, perhaps we should throw no light on the domestic manganese situation. But if to do so will result in reduction of our dependence on foreign sources for that vital element, it will have been worth the short-term price.

Because this country—at a price—can be made wholly self-sufficient. For a lesser price, it can be made partly self-sufficient. For no immediate expense, we may maintain our status quo, viz, our dependence for 91 or 92 percent of all our manganese on foreign sources. The jeopardy of these supplies in case of war? Immense; at least 90 percent is ocean-borne. Sixty percent of one fleet of oreboats was sunk in World War II. Marine transportation may cease to exist, next war.

What first is necessary to any degree of self-sufficiency in manganese is a decision on the highest plane that a certain degree be obtained, and the price accordingly be paid. Only the highest authority can force through the resistive ponderous mass of agencies the word necessary to point each toward a common goal.

In the absence of high-level policy the normal and inescapable process in Washington is a crossfire of individual policies, a self-canceling expenditure of effort within even the smallest units of Government, an individual direction for each agency imparting as much direction to the Federal whole as the Brownian movement of its molecules impart to any inert lump. No matter how hot.

No better example can be found than in the outcome of the manganese program evolving from those complex administrative bodies created under the Defense Production Act which came into being 2 years ago. One body, called the Defense Minerals Administration, originated the program for manganese. The dependence of this agency on a long chain of other agencies, never made cognizant by high authority of either the proper mechanics or the aim and purpose of a domestic manganese program, was fully brought out in those congressional hearings which aptly characterized Defense Minerals as low man on a totem pole. That this dependence was lethal both to the agency and to the program is attested to by the extinction of the one after a year, and the complete failure of the other.

The authority, the high-level policy was deficient; what of the internal aims and program mechanics?

Even within the agency a sort of self-negating Brownian movement existed. The critical position of manganese was recognized but many of the special problems of its production were not. Programs were long envisioned but met a typical Federal distaste for creating any dividend-paying ventures thereby. Much concern was given to the

expression of procurement problems largely by means of contracts written and rewritten till wholly antiseptic. The question of the relation between quantity of dollars to be committed by the Government to quantity of ore in sight drew new answers every day. A great and pervading fear of naming too high a unit price for the commodity tended to prevent naming any price. Obviously, the proper price is the price which will move the program, and move ore. No ore moved. The opinions, the energy spent, the conclusions, all had the algebraic sum of zero.

The price programs recommended by the only branch of the agency competent to judge what was necessary to move ore were given a treatment, elsewhere within the agency and under the guise of protection of the taxpayer, which placed them largely beyond the understanding of the waiting miners, and which included use of scales of payments without any attraction whatsoever. It is safe to say that the tiny trickle of purchases thereunder was made of producers only in desperate circumstances.

This experience again makes suspect the Washington heart professedly bleeding for the taxpayer. The reduction of the original simple and adequate price sales was made ostensibly to safeguard against too great a governmental outlay for ores requiring expensive beneficiating. Price levels were generally and particularly reduced, and over industry and other protests, at those points in the scale where the necessity for incentive was the greatest if ore were to move. After running the gamut of the administrative totem pole the program became effective about the middle of 1951.

It drew no ore and was replaced this summer by a new program, built around a markedly higher price scale. If I understand the targets correctly the increase in cost which the latest announcement represents over the lamented first recommendation within the agency, is at least $10 million. So much for the economy treatment of an ore-purchase program. Penny-wise and pound-foolish is the proper phrase.

In the foregoing lies the inference that a successful program requires a high, understanding and informed authority, behind proper program mechanics. None of these existed 2 years ago; the deficiencies in the attempts in 1951 are known to all. Today in the authority of DMPA and in the person of Howard Young we appear to have approached the first requirements. Program mechanics still are backward. Alteration is demanded if an important degree of national self-sufficiency is the goal.

Present defects appear to include too few and too scattered buying depots. The low-grade ore regulations in reference to impurities appear automatically to condemn probably 90 percent of the low-grade ore available from domestic sources. Recognized beneficiations processes are made a standard which unfortunately defies interpretation by any experienced metallurgist or miner. The amount of ores to be purchased and especially the duration of the programs do not appear practical to a substantial increase of production.

These defects have been discussed with those charged with promulgating and carrying out a manganese program for stimulating domestic production and with Howard I. Young, Deputy Administrator of DMPA, under which agency all manganese programs are formulated. The required changes in the programs to make them

workable and successful, both from the standpoint of the producer and the Government have been fully presented by industry representatives from all sections of the country. These individuals have felt assured that the changes in the regulations necessary to workable programs understandable to miner, processor, and metallurgist alike will be made. However, Washington being what it is, continuous effort is necessary to consummate these assurances.

It has recently been announced that pilot plants for certain chemical processes to treat low-grade ores are being contracted for, or are being considered, together with the long-delayed manganese-slag program. Nevertheless it appears that the earliest date by which these developments can make ore available in important quantities is in the dim and distant future; so that, in conjunction with such research, the accumulation of large stockpiles of ore that could be quickly ungraded to required specifications by known or high-probability processes would seem the safer, wiser course.

It must be pointed out that the present total goal of area programs together with the national program, if all are 100 percent successful, is to produce less than 750,000 tons of metallurgical grade ore over the 4-year life of the programs, and that this amount represents less than 10 percent per year of the quantity being consumed. This should impress on all thinking people that much more must be done if manganese production is to be given significant stimulation. There is practically no chance of the national program reaching even an appreciable percentage of its goal under present specifications. An increase in the tonnage aims of the low-grade programs and a lengthening of their life, because of the investment required to put mines in production, should be the first step in this revision, but no promise in this field has been made.

MERCURY [1]

By Gordon I. Gould; Gordon I. Gould & Co., San Francisco, Calif.

At the outbreak of the Korean war the domestic mercury mining industry had just ended a quarter of near record low production of the metal for all time. The record was made in the fourth quarter of 1950 when an estimated 630 flasks were produced—and this in a quarter when consumption was approximately 15,000 flasks. For the full year we produced domestically slightly over 9 percent of our consumption requirements against nearly 85 percent for the war years 1941–45.

What is the situation now—2 years after the beginning of this conflict and at a time when the uncertainties of the future demand that preparedness and provisions for adequate supplies of necessary strategic metals is more important than ever? We have a stockpile of mercury—a fairly good sized stockpile—but one which could be rapidly depleted under the requirements for all-out production.

[1] Presented at the 1952 Metal and Nonmetallic Mineral Mining Convention and Exposition, the American Mining Congress, Denver, Colo., September 22, 1952.

And as a result of the stockpiling which has been done we have an industry—still nearly as dead as in 1950—even more uncertain as to its future, and certainly one not encouraged to develop its productive capacity to anything like reasonable sufficiency for domestic requirements.

It is true that since mid-1950 the price rose from about $70 per flask to $220 in early 1951 and has since declined to about $187 per flask. But these figures represent far less than prices during World War II that brought out required production. Price increases, shortage and increases in the cost of labor, higher taxes—all of these factors mean higher costs.

And perhaps one of the most significant factors contributing to the plight of the domestic producer is the wholesale importation of the metal from European producers without regard for its effect on the American miner. In the postwar years 1946–51, the American taxpayer's money was being used to help the European producer who only had ore averaging 2 to 10 times the average grade of domestic ores, who paid wages of 20 to 30 percent of American wages, and who, in several instances at least, was a government-subsidized operation. During this period imports for consumption in this country amounted to 265,934 flasks against domestic consumption of 259,306 flasks. The effect on the domestic producer should be obvious.

So, what is our position today? Nine mines, accounting for 96 percent of the total production in the second quarter of 1952, produced 3,000 flasks. To date we have produced about 30 percent of our requirements. Consumption requirements are estimated at approximately 60,000 flasks for the year, production at about 12,000 flasks, or 20 percent of requirements. Imports continue at a high rate, having totaled nearly 30,000 flasks for the first half of 1952, an additional 30,000 flasks is rumored to have been purchased in Italy with ECA counterpart funds, and there will be others.

Unless, and until, importation of foreign metal is controlled to such an extent that the American producer can be sure that he is not at the mercy of foreign production, and until our own economy is brought back to a practical, sensible and encouraging basis, the mercury business in the United States does not have a very bright future.

STRATEGIC MINERALS CONFERENCE—TUNGSTEN [1]

By Charles H. Segerstrom, Jr., president, Nevada-Massachusetts Co., Sonora, Calif.

A restating of the important statistics on tungsten for the year 1951 is of no great importance unless viewed in the light of what has happened in past years. Therefore, the table below compiled from reports of the Bureau of Mines, is of greater interest than the figures for 1 year:

[1] Presented at the 1952 Metal and Nonmetallic Mineral Mining Convention and Exposition, the American Mining Congress, Denver, Colo., September 22-25.

United States production and consumption of tungsten

[In short tons of 60-percent WO_3]

Year	Production	Consumption	Percentage of consumption produced in United States
1940	5,120	10,500	49
1941	6,746	17,500	33
1942	9,433	18,300	52
1943	12,055	20,300	59
1944	10,260	20,100	51
1945	5,662	14,900	38
1946	4,908	6,800	72
1947	3,180	8,200	38
1948	4,228	9,300	45
1949	3,043	5,212	58
1950	4,244	6,931	61
1951	6,167	11,989	51
Total, 12 years	75,046	150,032	50

The year 1951 was one of great activity in the tungsten industry, with production greater than for any year since 1944 and with consumption greater than for any year since 1945, but there is still a long way to go before the goals of World War II are attained.

Because tungsten is one of the most critical metals in the armament program, the percentage of consumption produced in the United States is very important. For the year 1951, even with all the aid and assistance governmental agencies would give, we were able to produce only 51 percent of what we consumed as compared with 61 percent in 1950, 58 percent in 1949, and 50 percent for the 12-year period in the table above.

The domestic tungsten program of DMA has been a stimulant to the domestic tungsten industry. The program provides for the purchase of standard-grade concentrates by the Government at a price of $63 per short-ton unit less penalties for off-grade material. This program will terminate when 3 million short-ton units have been delivered or on July 1, 1956, whichever occurs first. No figures have been published as to how many units have been delivered to the Government up to this time, but much of current production is going to GSA.

There are many errors and fallacies in the conclusions and recommendations in the report of the President's Materials Policy Commission. Time will not permit me to elaborate on the criticisms I have in mind, but the recommendation that the tariff on materials such as tungsten be reduced or eliminated entirely cannot be passed by without comment. It is my firm conviction as well as others active in the tungsten industry, that the tariff has been the most important factor in maintain a fairly sound domestic tungsten industry. A look at the table of statistics for the tungsten industry for the last 12 years clearly shows the ups and downs which is so characteristic of the tungsten industry. As recent as 1949 many of the producers were forced to shut down due to lack of demand and low prices. It has never been proven that the elimination of the duty would increase supplies available to the United States, nor does the fact that all tungsten will come from abroad mean that prices will be lower. Look what has happened in other metals in the world market in recent years. The only sound policy for the United States is to maintain the duty in order to allow the United States producer to compete with foreign producers.

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